STWP REVIEW

REPORT OF THE STWP PUBLICATIONS REVIEW COMMITTEE

PREPARATION OF A COMMERCIAL PRODUCT INSTRUCTION MANUAL

D. A. Patterson

THE TECHNICAL EDITOR: MAN OR MONSTER?

Robertson Osborne

GEOFFREY CHAUCER, TECHNICAL WRITER

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EDITOR'S MARKS

George A. Stevenson

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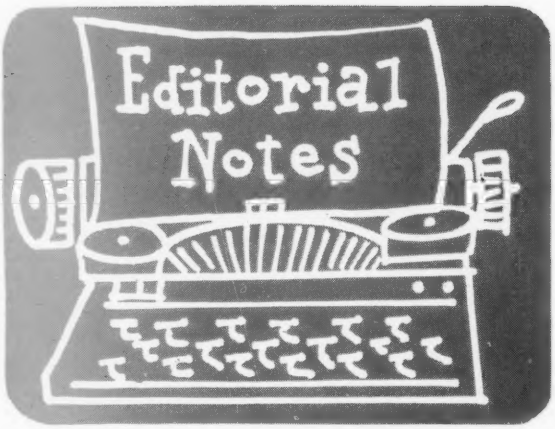


Often in this journal we have been told a true profession has its own literature and body of knowledge. More and more books directly related to our profession are being written. In many of them we find an appreciation of the status and problems of both the writer and the Society. This editorial is concerned with two such volumes.

In *The Language of Science* (Harcourt, Brace and World, Inc.) William Gilman writes about writing on scientific and technical subjects. His book is a strong and well-documented guide to effective writing.

As Mr. Gilman says, communication is needed but "the bad language of science—its bewildering syntax and other faults of grammar, its less-than-forthright exposition, its substitution of cant for vocabulary—is paralyzing that communication.

"The problem leads not only to technological devices that won't work, but to an inability to discuss intelligently such political and social questions as the danger from radiation poisoning. The problem has become bolder in outline, and the communications industry has joined educators in sounding alarms, but it has not risen as suddenly as some of the calls to arms would indicate. . . .

"So we face the following situation: As a workman, the technician needs his typewriter or a secretary even more regularly than he needs test tube or oscilloscope. He must write proposals, progress reports, findings for management. And for the advancement of his art, and the recognition that gives him personal advancement, he must publish papers addressed to his own kind. But of how much use is this writing if it does not really 'reach' the readers, if it is merely scanned and then crammed away into the already overflowing files?

"We can be cynical about the situation, can echo Dr. Harold Urey's suggestion that, because so much of the literary output by scientists is useless verbiage, it should be handled by a conveyor apparatus that will take it to an incinerator. But this would destroy good kernels of wheat along with the chaff.

"The bad language of science is responsible for an intolerable amount of time lost with needless riddles, and it paralyzes the flow of information. For instance, the efficiency of research done for the Department of Defense has been put as low as 15 percent; with the rest blamed on poor communication, misunderstanding of objectives, difficulty in getting help from the existing information, and duplication of work already done."

MIDDLEMEN: TECHNICAL WRITERS

Turning his attention to us, as technical writers, he says: "There are many such middlemen, some with technical background but many with little or none. They carry such titles as technical-information specialist, literature scientist, presentation editor, publication engineer, engineer-journalist. Some work in public relations, preparing speeches and releases; some serve as writers and editors with house organs; some help the technicians of industry, government, and university to turn research findings into presentable reports and articles.

"And then there is a new and special breed of engineering writer who is being avidly sought by technology. This is the so-called 'technical writer,' whose work is largely the important modern-day chore of writing manuals, specifications, and handbooks. A company that experimented by hiring five of them had to employ 500 a few years later. There are several thousand in the aviation industry alone.

"Yet it is not clear just yet what a tech writer is, nor are all of them paid as highly as would be indicated by ads promising salaries that are 'Crazy, Man, Crazy.' Most valued in this class is the person who can translate good science into good writing. But the combination, technical knowledge and skillful writing, is a superspecialty that specialized education is only beginning to learn how to handle.

"A few companies have insisted upon both credentials and been willing to pay accordingly. Others do what they can with on-the-job training and postgraduate schooling that teaches writing to the technician and science to the English major. A surprisingly large number of tech writers have come in 'through the back door'—with little or no science background—and have picked up enough jargon to get by. When their writing doesn't go beyond the repeating of jargon, the results are what might be expected. It is bad writing even for a heavily technical manual. . . .

ENGLISH VERSUS SCIENCE BACKGROUND

"However, standards are being raised; and the Society of Technical Writers and Publishers has become keenly interested in the problem of qualifications. At first glance, the requirements would seem to rule out the ordinary good writer with only an A.B. degree. But the belief is growing that it may be easier to teach the language of science to a capable liberal-arts person than to teach a science major how to write well. And we see an increasing number of ads like these: 'Journalism, English, or engineering degree necessary'; 'If you possess a B. A. degree in English or journalism, or a B. S. degree in chemistry or engineering, we may have just the opportunities you are seeking.'

"Much of the debate therefore becomes meaningless. Whether the tech writer comes from the science or English corner of the campus matters less than his having a reasoning mind and ability to explain. Here, then, is a new specialty which is not so highly specialized after all. It isn't so much being 'strong in science and weak in English,' or vice versa, as having what a good writer and a good scientist share—awareness of the reader and willingness to work for clarity."

Books about technical writing are filling the library shelves, but books about all of the facets of technical literature are scarce. One of the best is *A Guide to Technical Literature Production* (TW Publishers), by Emerson Clarke, which covers the whole spectrum of publications.

PROFESSIONAL PRIDE

Mr. Clarke's section on convincing writers of their own worth is thought-provoking: "A profession exists because there is a demand for it dictated by economics. Many professional technical writers have responded to the economic call without thinking too deeply about the basic reasons for the existence of the profession. As a result, there is too little understanding of this new profession among writers and too little pride in its accomplishments. There is reason for pride, first because it is a vitally important profession, and second because it demands of its practitioners a singular panoply of skills not usually found in a single individual. The writer must have technical knowledge, writing ability, and the hundred skills that go into preparing a publication. In these days of intense specialization, the technical writer stands out as a man of broad accomplishments.

"Surprisingly, many technical writers do not appreciate their own worth, nor are many engineers fully convinced of the value of the technical writer in supporting the engineering profession. Six definite reasons can be cited for the existence of the profession. These are:

"1. The use of technical writers relieves the shortage of engineering personnel. Because of the technical writer's help, the time an engineer or scientist can devote to his project may be increased as much as 10 or 15 percent, depending upon the type of project. The value of this saving is immense in view of the acute shortage of engineers.

"2. Most engineers like to do the engineering; they don't particularly like to write about it. So the writer is a welcome addition to the engineer's staff.

"3. The technical writer has at his command certain knowledge and skills in preparing a publication that can be obtained only through training and experience, such as (a) ability to convey technical information effectively to the reader through appropriate use of artwork and text; (b) ability to write lucidly and quickly; and (c) awareness of writing, artwork, and printing costs.

"4. In certain research and development projects, the writer can often reorient the engineer with regard to his project. The viewpoint of the 'enlightened outsider' may be very helpful.

"5. The engineer may not be able to write effectively about a project because he is too close to it to see it clearly. He may solve the big problems quickly, but some of the minor details may require an inordinate amount of time. So when he writes about his project, the little problems are so magnified that he can write about nothing else. As an impartial observer, the writer can separate the important from the subordinate.

"6. The writer's extensive technical knowledge and experience may make it possible for him to offer an occasional suggestion for the solution of an engineering problem.

"These reasons must be continually reaffirmed so that the technical writing support service is not taken for granted by the engineers and higher management. A subtle, continuous sales effort must be made to convince those concerned of the value and utility of the technical writing function. If the effort is successful, the job of creating technical literature will become much easier.

"And most important to the writer's own effectiveness, if he is firmly convinced of the value of his profession, he will do a better job."

A NOTE TO CONTRIBUTORS

Contributions to the *Review* are always welcome; short articles of 500 to 1000 words are most easily fitted into our small magazine.

Send the original on heavy white bond paper, typewritten, double or triple spaced, plus two carbons. Leave at least a 1-inch margin on all sides, number the pages consecutively, and be sure that all illustrations are keyed to the text.

Articles should not exceed 2500 words plus three illustrations.

We assume that every article is approved by your company before it is submitted. The authors' names and affiliations should be on the manuscript. A short biographical note is most helpful. This note should include the present title of the author, the full name of his organization, and complete information about books, other articles, or any other publication credits. Please address all contributions to the Editor; the Review Committee will read your article and our publication plans will depend on their collective judgment.

The *Review* has no objections if articles appearing in it are reprinted for noncommercial use but, as a matter of courtesy, the author's permission should also be requested. If an article is going to be quoted or abstracted, as in a book, the *Review* feels that this is a matter for the author. Under the doctrine of fair use one can quote small sections of a publication with proper credit. But any abstracting or reviewing or substantial reuse of an article requires the author's permission. The *STWP Review* is copyrighted but the rights to any further use of an author's material revert to him upon request.

ADVERTISING INFORMATION

Advertising rate sheets are available on request. Deadlines for the receipt of advertising copy are November 20, February 20, May 20, and August 20.

Mr. Clarke's reminder that we must continuously sell others on the value of the technical writing function should be unnecessary, but many of us tend to forget this point once the activity has been set up and is running smoothly. As long as our profession's literature and body of knowledge continues to grow, we will be kept mindful of such considerations, thanks to Mr. Clarke and others who look at our business from the viewpoint of management. Ω

A Letter from the President

Dear Member:

As you may know, last November I appointed a committee to review the entire publications effort of the Society. That committee has now reported, and its findings have been studied by the Board of Directors. At its July meeting, the Board agreed to move deliberately in the direction recommended by the report.

The committee was composed of four non-member professional editors—two of society journals and two of business publications. They reviewed carefully the last three years' output of STWP *Newsletters* and *Reviews* and statements provided by the Society concerning the costs, purposes, and editorial and advertising policies of these publications.

The report of the committee is published in the pages which follow. I recommend that each one of you who is interested in the Society's objectives and the accomplishment of those objectives through its publications give that report your thoughtful attention.

Your Board of Directors has given the report its careful consideration, and has found much of merit in it. Of course, conscious of the obligations of the Society to its printers and advertisers, the Board did not suggest any immediate change in the Society's publications. It did express the belief, however, that too large a proportion of the Society's funds are being devoted to publications and that a single publication could probably be designed which would both meet the needs of the members and maintain and further the prestige already established by the Society's current publications.

The Board is still considering the question of how to achieve, in the Society's publication effort, the optimal combination of effectiveness, economy, and excellence. Certain facts about the Board's deliberations deserve particular emphasis: (1) immediate discontinuance of either Society publication was never contemplated; (2) ultimate discontinuance of a Society publication is contemplated only when an organ more suitable to the Society's needs and capable of further enhancing its prestige is ready to take its place; (3) the Board is seeking the advice of the entire membership of the Society to assist it in giving proper direction to the Society's publication effort; and (4) the question of the Society's publication policies will be further discussed at future Board meetings before any change is apparent in the Society's publications output.

Nevertheless, I regret to have to announce that because of the Board's indication of the probable eventual discontinuance of the *Review* in its present form, the long-time editor of this publication, Allan Lytel, has resigned from the Society in protest. A. Stanley Higgins has consented to serve as editor of the *Review*.

The Board of Directors is keenly aware that the publication policies of our Society are matters of vital importance to all the members. That is why we are eager to hear your unvarnished views about the effectiveness of our current publications and about the course we should take to increase the effectiveness and excellence of our publication effort while reducing its cost to the Society. Your views on these matters are solicited on the questionnaire included with this issue of the *Review*. (It should be pointed out that this is not the questionnaire envisioned by the Publications Review Committee as a means for discovering our members' interests, duties, and responsibilities. That questionnaire, being more difficult of construction, is not yet ready for distribution.)

Since the response to a questionnaire is usually quite slim and since we want as large a sampling of membership opinion as possible, I am asking each chapter to organize its own follow-up of the questionnaires and return them to me by November 15, 1961. You may send your questionnaire to me directly or you may give it to your chapter for bulk-mailing, whichever is more convenient.

Your considered opinion of the part publications should play in the work of the Society will help guide those who will plan the future course of the Society's publications effort.

Let us hear from you!

VERNON M. ROOT
President, STWP

Report of the STWP Publications Review Committee

THE PRESENT PUBLICATION EFFORT *of the STWP, i.e., a newsletter and a magazine, seems too extensive for the Society at this stage of its existence. The Society is relatively young, its financial resources are limited, and the membership is not particularly large.*

However, a publication of some kind seems essential to a society of writers and editors. This report recommends that full attention be given to producing one *highly professional publication; the format recommended is that of the* Newsletter, *with some changes indicated.*

As a first step toward upgrading the publication effort, a comprehensive survey of the membership is also recommended. This survey should be devised to gain information for editorial purposes, for soliciting further advertising revenue, and for other Society purposes.

To produce a uniformly high quality professional journal a paid editor is essential. While a part-time paid editor may be the only practical solution now, at the earliest possible moment the Society should hire a full-time editor. Until that time the editor of the publication should be given much more comprehensive editorial guidelines by the Editorial Board or a similar group.

PURPOSE AND SCOPE

The Publications Review Committee was formed at the request of the President of the STWP to examine the *philosophies, objectives, contents, and operations* of the Society's two publications, the *Review* and the *Newsletter*.

While this assignment gave the committee an extremely broad area in which to work, the study was actually limited to certain key areas by practical considerations. As the body of this report indicates, certain basic decisions must be made before a more detailed study can be carried out. We consider these recommendations as "first steps" that need to be taken. In the committee's opinion, further study of the publications effort can best be made by the Society itself because many of the remaining questions involve policy that the Society must establish.

COMMITTEE MEMBERSHIP

The chairman of the Publications Review Committee was chosen by the STWP President. Richard W. Dodge, Editor of the *Westinghouse Engineer* and a senior member of STWP, was selected, and he was charged with the responsibility of forming a committee of professional editors who were not members of the Society. Because of the nature of the study, two members were chosen for their background in technical society publications and two for their experience in technical magazine publication.

The committee consisted of J. J. Jaklitsch, Jr., Editor, *Mechanical Engineering*, American Society of Mechanical Engineers; C. B. Larrabee, Director of Publications, American Chemical Society Applied Publications; H. R. Clauser, Editor, *Materials in Design Engineering;* and L. N. Rowley, Publisher and Editor, *Power*.

The function of the chairman was to gather the necessary information and to coordinate the activities of the committee.

RECOMMENDATIONS

The major recommendations of the committee are as follows:

Recommendation 1. A thorough survey should be made of the membership of STWP to provide the information about each member necessary for adequate guidance of editorial and advertising policy.

Recommendation 2. The *STWP Review* in its present form should be discontinued, with concurrent increase in the *Newsletter* size to include one or two articles per issue. The *Newsletter* should then be published on either a monthly or bimonthly basis, depending largely on the financial ability of the Society to support it.

Recommendation 3. A paid editor should be employed to assemble and edit material for the *Newsletter*. The committee believes that a part-time editor could be recruited from within the membership and paid a flat rate per issue. At the earliest possible moment, however, a full-time editor would be highly desirable.

Recommendation 4. The present editorial board, or a similar group, should establish more detailed guidelines and

procedures for the editor until such time as the Society can support a full-time editor.

Recommendation 5. Several miscellaneous comments are given in the next section. Some of these are in the form of recommendations; others pose questions for the Society to answer.

DISCUSSION OF RECOMMENDATIONS

In arriving at the four major recommendations, the committee explored the entire publication problem as thoroughly as possible. From the beginning, however, it was apparent that Society policy and publication policy are so closely interwoven that they cannot be completely separated. It was equally apparent that the committee could only make recommendations based on its own collective experience and judgment, without taking into account any possible conflict with Society policy.

For example, two vital questions that enter the picture are: *Just how important are publications to the over-all Society objectives? What portion of the Society's income can reasonably be spent for publications?*

At the other extreme, the committee believes that no detailed recommendations are in order on such publication details as design, typography, quality of editing, and similar matters. In most of these areas, there is no sharply defined "best method"; the limits of acceptable practice are broad, and most decisions in this area involve personal preference rather than proven fact.

Within these boundaries, however, the committee found adequate areas to explore. The following paragraphs point out the conclusions of the committee, and reasons for the recommendations.

Recommendation 1—Survey of Membership. To the committee's knowledge, no substantial information is available concerning individual members of the Society. A thorough knowledge of the exact nature of each member's job, his degree of responsibility, and similar information is vital to a useful and successful publication, both from the standpoint of planning editorial content and approach and of obtaining adequate advertising revenue.

A knowledge of a publication's audience is obviously essential to its editor. The more detailed and extensive that knowledge is, the better he can do his job. For example, knowing that a given member is a report writer is not necessarily very useful. Information available should include such considerations as subject matter the report writer customarily deals with, what type or level of reader the reports are written for, some indication of the technical level, and the purpose of the reports. The same approach is necessary for other job categories.

Similar knowledge seems necessary for the most effective approach to gaining more advertising revenue. Among the questions that need to be answered are: Which members are in positions that involve direct purchase of any materials, services, or supplies? What materials or supplies do they purchase? What members are in positions in which they influence purchasing decisions, even though the actual decision is made elsewhere in the organization? What materials or services are involved? Which members have no direct or indirect influence on purchasing decisions?

Such information could point to potential new sources of advertising revenue and could provide useful ammunition for those selling advertising space in Society publications.

Beyond these two obvious benefits of a survey, it seems likely that other useful information could be collected simultaneously for other Society activities. For example, a knowledge of the skills and talents available within the Society should be useful in the formulation of committees or in giving special assignments. Some information about activities not directly associated with each member's job might also be valuable. For example, information about outside activities, such as books authored by members, or special talents could prove useful.

The committee believes that such information could be gained by a mail survey, conducted either by the Society or by individual chapters; or it could be conducted in conjunction with membership renewal. Considerable care, thought, and effort should be devoted to the questionnaire to assure that all the necessary information is gained and in the simplest form for compilation.

Recommendation 2—Discontinuance of Magazine and Enlargement of Newsletter. This recommendation was based largely on the size and financial resources of the Society and on the apparent lack of prospects for any immediate and sizable increase in advertising revenue. While the committee recognizes that publications are essential to a society of writers and editors, the present program of two major publications seems too ambitious to this early stage of the Society's existence and with the potential resources available.

We believe that, under present conditions, a concentrated effort to produce one highly professional publication would be more effective than the present divided effort on two publications.

The recommendation to discontinue the *Review* and continue the *Newsletter* with some changes was based on several considerations:

1. A "news" publication seems essential to the Society, and the present *Newsletter* seems to perform that function reasonably well.

2. The basic *Newsletter* format is relatively inexpensive and is extremely flexible as far as quantity of editorial content is concerned. The size of the *Newsletter* can be decreased or increased, depending upon availability of material and upon financial resources available.

3. Scaling down the publication effort seems advisable in view of the financial position and size of the Society. The *Newsletter* appears to be a better starting point for a publication effort than the existing magazine; articles can be added to the existing format whenever good ones are available. The committee feels that one per issue might be a good starting point.

4. In our opinion, much of the material in the *Review* is of marginal value and probably of limited interest. Uniformly good material is apparently difficult to obtain. The committee's opinion is in no way meant to downgrade the efforts of the present editorial staff; we simply believe that an unpaid part-time editorial staff is not likely to produce the consistent high quality professional journal that the STWP should have and that as a young society no strong motivations for contributing to a magazine have as yet been established in members.

5. The *Newsletter* editor would be in a better position to be highly selective in printing articles; he would have no concern about "filling pages." The few articles published would therefore

tend to be of broad value, and more professional in content and writing.

Recommendation 3—Hiring of a Part-time Editor. The committee was unanimous in the belief that the Society should employ a part-time editor for the *Newsletter* immediately and at the earliest possible time should employ a full-time editor. A part-time editor should be obtainable from the membership of the Society and his services could probably be obtained for $100 to $200 per issue, depending upon the specifications of the job.

The reasons for and the advantages of a paid editor are, we believe, obvious. This step is necessary to the production of a uniformly excellent professional publication.

Recommendation 4—Guidelines for Editor. The existing policy statement carried in the January 1960 issue of the *Review* is, we believe, too general to be useful to a voluntary staff or a part-time editor. To the best of our knowledge, the *Newsletter* has no similar policy statement.

A full-time paid editor could undoubtedly work well within the framework of the existing *Review* policy. Such an editor should be expected to generate and follow through his own ideas and to build a working policy of his own within the framework of the formal policy. The existing policy is sufficiently "loose" to permit a full-time editor to develop the magazine along his own lines to meet the needs and goals of the Society.

A voluntary or part-time paid editor, on the other hand, has less time and less incentive to develop new ideas and new approaches. Therefore we feel that a reasonably specific working policy should be drawn up, possibly by the existing Editorial Board, to give more thorough guidance to the editor until such time as a full-time man can be employed.

Guidelines should cover such things as the specific types of material considered suitable for the publication; some indication of the relative importance of each type; some general guidance as to the amount of space to be devoted to different types of material; suggestions for content; and so on. These recommendations should be specific enough to permit the editor to evaluate material easily and quickly. Naturally, these guidelines must be drawn with care so that they help the editor rather than impede him.

For example, what should be the goal for the amount of space devoted, on the average, to chapter news? No national news? To news of interest to the Society but not necessarily Society connected? Also, specific recommendations on regular features — columns, book reviews, etc.—should be made to the editor. Standards for articles can be spelled out more clearly as to content, style, and general length of article.

All of this should be done, however, with the editor as a full-time partner. He should be allowed to exercise as much originality and ingenuity as he can within the limits of time; the function of the Editorial Board, or other group, should be to give him more specific help in these areas.

Recommendation 5—Miscellaneous. During the course of the publications review many ideas were expressed that do not necessarily represent recommendations but may be worth further consideration by the Society. Some of these opinions and suggestions are given in the paragraphs that follow.

1. Regional issues of the publications might attract more regional advertisers. This has been discussed by the Society; the committee felt it is worth a thorough evaluation.

2. Assuming that a membership survey shows that a sizable percentage of the members purchase materials and services or influence their purchase, the committee wondered whether the reproduction process industry had been actively solicited for advertisements. This area could include nearly everything in the inexpensive reproduction field — machines, materials, services. Another possibility might be art supplies.

3. In close connection with this, either publication might consider a "New Products" section, devoted to devices useful to the members.

4. A section of "Ideas" might be worthwhile in either publication. This could contain practical ideas and shortcuts useful to members. This could range over the whole area of reader interest, from writing and editing to production, art, or layout techniques. Conceivably a small payment could be made for each idea published.

5. The subject of book reviews (in the *Review*) was discussed. The committee believes while such a section in the *Review* is valuable, the present section tries to cover too much ground. The committee believes that major book reviews should be limited to subjects of interest to the majority of readers, and that it is both impractical and impossible to try to cover the entire spectrum of possible reader interest. The suggestion was made that a policy should be established to outline the types of books to be reviewed and that basically reviews should cover books in the communications field. Books of more limited interest should be reviewed by title and publisher alone, or at most by a one or two sentence summary.

6. STWP publications should attempt, in the long run, to support themselves. This does not necessarily mean that an issue of a particular publication pays for itself, but the entire publication effort should at least break even. Some possible avenues:

Sell subscriptions outside the Society. The success of this depends on the nature of the publication and is not an immediate prospect for the *Newsletter*. Possible future subscription areas: business magazine staffs, science writers, technical management.

Sell reprints on a regular basis. Possibly run digests in the *Newsletter*.

Publish and sell other technical writing material.

CONCLUSION

The publication effort of any society depends squarely on the relative importance attached to publications by the officers and members of the society. Therefore only the society itself can gauge the percentage of its funds and efforts to be allocated. Should publications be expected to support themselves? Should they be partially subsidized by the society, and if so, to what extent? Should they be totally subsidized? These are questions that can only be answered by the society.

Therefore, although the opinions and recommendations expressed in this report reflect the judgment of the Publications Review Committee, we do not offer them as the only solution to the publications problem. The course to be followed by the STWP must be closely integrated with other activities and policies of the Society and not treated as an isolated problem. Ω

Preparation of a Commercial Product Instruction Manual

D. A. Patterson

USER-ORIENTED MANUALS *are rapidly replacing the traditional product-oriented instruction books because they provide a more practical tool for the equipment user. In preparing such a manual, the writer first identifies—from the standpoint of the user—certain points or problem areas and then asks questions about these areas. This is the key step, for the right answers to the wrong questions are of little value to the user. Once the right questions are posed, the answers are formulated and then, by proper choice of organization and format, are presented in the manner that can be most readily used by the reader. The primary objective of this type of manual is to give better customer service by providing for the real need of the user—answers to his problems rather than a prosaic description of the equipment.*

WHAT IS AN INSTRUCTION BOOK?

An instruction book is a collection of *useful* information directed toward, or focused on, a particular group of individuals who have some common need or requirement for the information. It may be directed to persons involved in many different aspects of a product's use, and hence it must satisfy a range of discrete needs. The instruction book must impart new knowledge or present old information in such a way that it will direct the user to an orderly method of performing the intended operations. The instruction book must be a useful tool; it must have a purpose; its information must fill a need.

Equipment memorandums for its telephone central office test equipment are being prepared at the Automatic Electric Company with these ideas in mind. These new instruction books are brief and informative and are directed toward the actual user of the test equipment.

Traditionally, commercial customer instruction books have been overwhelmingly product-oriented, tending to be heavy in descriptive content regarding the product but light in instructive material. They told how the product looked, how it was designed, and how it worked, but little else.

Manufacturers have discovered that they have other obligations to their customers beyond the sale of the product. This idea of customer service has grown in the areas of repair facilities and customer service representatives. It has also entered into the preparation of service manuals; for as products become more complex, so do the requirements for accompanying instruction material. Let's see how this idea has affected commercial product instruction books.

IDENTIFYING THE PROBLEM

In order that we may supply useful, directed information, we first study two key areas: the user and the equipment.

The *user* is the target of our directed information. Therefore we ask:

Who is the user?

What is his training—what does he already know?

What will he need to know?

Will the user be expected only to use the equipment, or will he maintain it as well?

Since any useful information about the equipment will help the user, we next ask certain questions about the equipment:

What is the purpose of the equipment?

What does it look like?

What accessories are furnished with the equipment?

How complicated is the equipment?

How is the equipment connected externally? Internally?

How is it operated?

When we have answered these questions about the user and the equipment we come naturally to our third problem area: How can we package the information for the user in a way that will be concise, easy to read, and easy to understand? This is the problem of format. About the format we ask:

How can the instruction book format assist the user?

What aids can we furnish the user to make his work easier and more efficient?

With answers to these two questions at hand, we may then determine the direction, content, and format of the instruction book that will best meet the user's needs. With the problem areas clearly defined in the form of questions to be answered, collecting the answers and organizing them in a form that will afford greatest utility is relatively easy. We now know what to look for.

FOLLOWING AN EXAMPLE

To see how all these questions and answers helped us prepare an instruc-

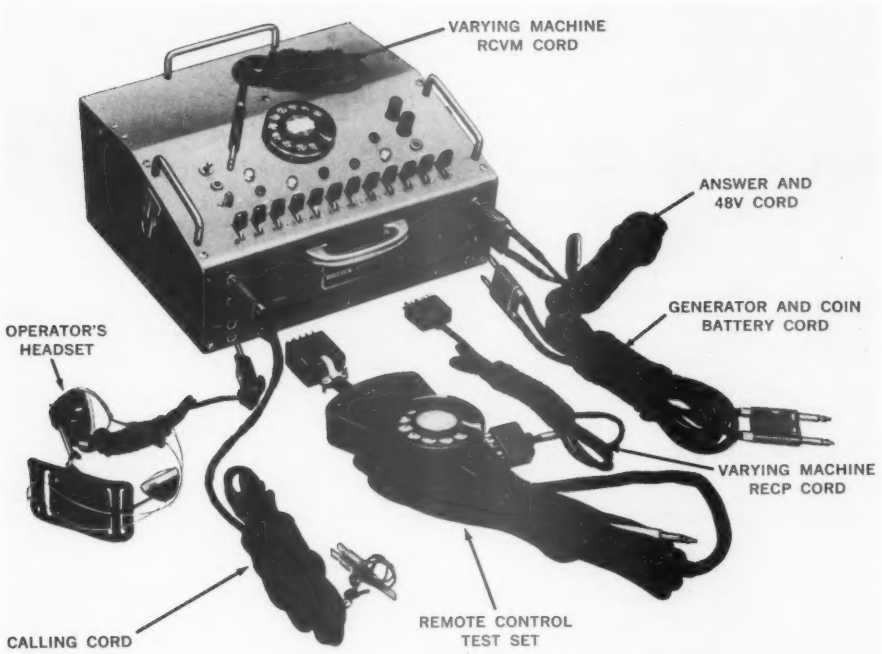


Figure 1—Type 26 Switch Tester

tion book, we will follow a typical example through its makeup: the equipment memorandum for Automatic Electric's type 26 switch tester.

The equipment to be covered in this instruction book is a new, compact, portable test unit designed to perform routine testing of step-by-step telephone switches. Internally it is not complex; externally it consists largely of a metal box on which are mounted lamps, keys, a telephone dial, and a number of jacks and receptacles. It may be used alone or with other test equipment. It is furnished with a number of accessories.

The user, in this instance, is the central office test man. What about him? Well, he is not an electrical engineer; he is not going to design, manufacture, or repair the switch tester. His work is fairly routine. He is not concerned with what is happening inside the tester. (At this point it may be necessary to answer other questions such as "Who else may need to use the instruction book?" and "Will the instruction book be used to augment the company's sales material?")

The user, then, will need certain information about the tester. He will want to know, in a general way, what it is for, what it may be used with, what is furnished with it, and what else he may need that is not furnished with the equipment in order to perform his tests. He will also want to know what the tester looks like and how it connects to other equipment such as accessories, auxiliary test equipment, and the switches that he is going to test. Most of all, he will want to know how to use it.

Now we know some essential data about the user and the equipment. How can we present this information to give the test man the most useful tool to make his work easier and more efficient?

Graphics (schematic diagrams, photographs, line drawings, and possibly graphs) and tabular material are among the best aids that we can give the user. Illustrations can show the user at a glance what the equipment is, what is supplied with it, and how it goes together. Charts or simple schematic diagrams assist the user in making setups for testing, and in understanding what he is doing. Tables summarize pages of text and reduce it to a point where the test man can extract a given piece of information immediately. A man balanced precariously on the top of a ladder doesn't want to struggle through paragraphs of tight text to locate a vital bit of information that he needs!

SOLVING THE PROBLEM

In preparing the equipment memorandum of the type 26 switch tester, we outline the information we have obtained, and we group it in five sections:

1. Introduction.
2. Physical data and equipment.
3. Function of the switch tester.
4. Preparation for testing.
5. Test procedures.

(If the user *needs* to know exactly how the equipment operates, or how to maintain it, this information can easily be incorporated.)

Section 1 briefly explains the purpose of the switch tester and what equipment it may be used with. The tester, together with its accessories, is shown in a photograph (Figure 1). All accessories are shown in their proper position; for example, plugs are properly oriented to the jacks or receptacles into which they are to be inserted in making connections. Each of the accessories is called-out, using the name employed in the text. This may seem obvious, but we have probably all seen cases where callouts and text did not correspond.

EQUIPMENT	FUNCTION
BUSY lamp	Gives a visual indication of a busy condition when the test set is connected to the switch test jack (before the switch is seized).
C lamp	Provides supervision of the switch under test.
CC lamp	Gives a visual indication that the correct polarity of coin battery for coin collect has been placed on the line.
CR lamp	Gives a visual indication that the correct polarity of coin battery for coin return has been placed on the line.

Figure 2—Chart Showing Parts and Their Functions

5.2 Testing Local Connectors or Local Features of Combination Connectors

Step	Operation	Indication	Remarks
Preparation	Make connections, section 4.1 a, b (4.2 if desired).		
A1. Switch busy.	B1. Check BUSY lamp.	C1. BUSY lamp lights.	D1. If a busy condition exists (START key not operated), the BUSY lamp will light.
A2. Switch seizure.	B2. If the switch is not busy, operate the START key. *(For loop pulse test see section 5.1).	C2. LOOP, SUPY and C lamps light.	D2. The LOOP lamp lights indicating a closed loop to the succeeding switch. Upon seizure the SUPY lamp will give a visual indication that the switch has been seized and is ready for dialing. The C lamp indicates that the switch is placing the proper ground on the control or C lead.
A3. a. Line seizure, stepping and line busy (non trunk hunting connectors). b. Line seizure, stepping and line	B3. a. Operate BUSY key and dial test number (99). b. Operate BUSY key, TRK HTG	C3. a. The connector steps to the test line and returns busy tone which can be heard in the operator's headset. b. The connector steps to the test number (99),	D3. a. The switch tester places a 150 ohm ground on lead C through resistor R13 for testing non trunk hunting connectors. b. The switch tester places a direct ground on

Figure 3—Typical Section of Detailed Test Procedures

In the second section, the tester and its accessories are described. In the third section of the instruction book, the function of the tester and its components, are briefly explained. The direction of the discussion is toward what the test man can see and hear without disassembling the tester. A chart (Figure 2) listing each control, indicator, jack, and receptacle is included.

The fourth section outlines the steps necessary to prepare the unit for testing. Instructions for connecting the tester to power sources, to the switch to be tested, to accessories, and to other test equipment are detailed, along with appropriate notes of caution. This section of the book is illustrated with a line drawing showing each control, indicator, jack, and receptacle to be used, thus familiarizing the test man with the location of components discussed in the text. With more complex equipment, procedures for adjusting and calibrating the equipment before use would be included in this section.

The fifth and last section of the book gives detailed procedures for testing each type of switch with which the tester may be used. These procedures are given in tabular form (Figure 3) placed broadside on the page. Wherever possible, all instructions for a given test are shown on facing pages, so the test man will not need to turn pages while performing the test. The "Step" column lists the step or test being performed. The "Operation" column tells the test man what to do. The "Indication" column tells him how the tester and the switch being tested should respond to test conditions. The "Remarks" column includes a brief explanation of what has happened in the tester and in the switch being tested. If the procedures are difficult to follow, explanatory notes and schematic diagrams may be used to augment the tabular material in this section.

SUMMARY

We have seen how an instruction manual may be prepared from the point of view of the *user* instead of the product. The problem may be reduced to a logical procedure by first identifying—from the user's viewpoint—certain points or problem areas and then asking questions about these problem areas. After these questions have been answered, the next step is to choose the best way to present this information to the user. The problem is thus reduced to

Identifying the problem areas.

Asking questions in each area.

Answering the questions.

Presenting the answers in the most useful way.

A manual prepared in this way gives better customer service by providing a more useful tool for the equipment user. Ω

About the Author . . .

D. A. PATTERSON *is a technical writer for Valley Illustrators and Publishers, Inc., St. Charles, Illinois. At the time of writing this article he was employed in a similar capacity by the Automatic Electric Company, Northlake, Illinois. Mr. Patterson served in the Army Ordnance Corps for nine years, working in preventive maintenance and close-support logistics programs. He was trained in guided missile maintenance at Redstone Arsenal, Huntsville, Alabama. His principal experience as a technical writer has been in the preparation of equipment service and maintenance publications.*

The Technical Editor: Man or Monster?

Robertson Osborne

ONE OF THE MORE *valuable assets of a technical editor is his ability to make the authors with whom he works understand exactly what his job is. From the standpoint of the less-appreciative author, the editor is the one who delays his manuscript, chops it up, and changes its meaning. The author is likely to grumble unless he is shown how skillful editing can make his material more meaningful for the intended reader. Once this proof is established, the writer-editor team begins to function properly, and each one starts learning from the other.*

This article was adapted from material written by Mr. Osborne to acquaint personnel of the Burroughs Corporation with the problems and techniques of technical information processing. It is directed to technical writers and engineers who prepare manuals and bulletins for field engineering use.

Some writers and engineers are not fully aware of the part played by a technical editor in publishing technical material. This article explains *what* he does, *why* he does it, and *how* his work affects the final product as it appears in printed form.

First let's discuss some common opinions about the technical editor. Then we'll review the qualifications he must possess, his avoidance of personal feeling, what he is trying to accomplish, and how you can work with him to your own best advantage.

OPINIONS— SOME RIGHT, SOME WRONG

If a technical editor develops a hide like an alligator's, it is because he hears or overhears remarks like these:

1. He doesn't know the equipment as well as I do.
2. He uses ten words where I used five.
3. He changed the meaning.
4. All he does is put in commas and things like that.
5. I don't understand his changes.
6. It's too hard to read the draft when he's through with it.
7. It takes too long; when I get the draft back I've forgotten what I wrote.
8. Why not save time and just print the thing the way I wrote it?
9. The editor makes changes because he likes to feel important.

Let's consider these remarks one by one.

"He doesn't know the equipment as well as I do." This statement is usually true. However, you are being paid for your detailed knowledge of the equipment; the technical editor is being paid for other skills. He must have enough background to be able to understand what you write and to follow it in detail, but he is not the *source* of information—that's *your* job. The editor's qualifications are discussed in a later section.

"He uses ten words where I used five." Sometimes this remark is true; just as often the opposite is true. If your writing is usually lengthened or usually shortened by an editor, take the hint: Your writing is too condensed and choppy, or you are not saying what you want to say in a direct and simple manner.

"He changed the meaning." Yes, it happens. Any editor worth his salt knows it happens and should be able to admit his error freely and without embarrassment. But *why* does it happen? In most cases it is because you have not made your meaning clear and unmistakable. If your meaning is not clear to an experienced editor, it will be even more confusing to the reader who is not familiar with your material. Do not make the mistake of assuming that the reader is familiar with your material. If he is, he doesn't need your manual. The conclusion is obvious. Remember it.

"All he does is put in commas and things like that." If this remark is true, you are to be congratulated on the organization of your material and the clarity of your writing. However, a little thing like a comma can drastically change the sense or emphasis—or even reverse the meaning of a statement. Examples of the importance of commas and other so-called "fine points" fill whole chapters of books on writing. Next time you feel like making this remark, study your edited draft again; consider *why* the editor made each change and whether the remark is really true.

"I don't understand his changes." Have you discussed the changes with the editor? Unless the publication is extremely urgent and the editor's changes are trivial, the edited draft is always returned to you to make sure that your technical meaning has not been changed. It is your privilege as a writer to question the editor regarding any alterations he has made. It should be your personal duty to yourself, as one interested in self-improvement, to learn all you can from his work and to discuss anything you do not fully understand or feel unwilling to accept. The

editor learns from you, and will be happy to return the favor. Even if you collide head-on at times, both of you will benefit.

"It's too hard to read the draft when he's through with it." If you find this to be the case, one of two things is wrong: You haven't learned the editorial symbols (which are not as baffling as they may look), or your draft was poorly prepared. No matter how well you write, your draft must be typed with wide margins and must be double-spaced or triple-spaced to allow room for the editor's notations about typesetting or typing style, placement of figures, and other essentials. Furthermore, a draft seldom gets past the editor without at least a few changes, and the draft must allow room for these changes if the typist is to read it.

"It takes too long; when I get the draft back I've forgotten what I wrote." Editing our type of material normally requires up to one-fourth the time spent in writing. If editing takes significantly more time, it is because the material is unusually complex, requires a great deal of cross-reference and correlation with other material, or is poorly prepared. (For example, comprehensive reports in the field of nuclear energy may require as much as two years for editing and rewriting, owing to their complex technical detail.) In our work, poor preparation is a common cause of delay. A persistent error, for instance, is the writer's failure to provide adequate cross-references and to identify his source material. He may use a previously printed drawing or photograph without any clue to its origin. This frequently causes unnecessary duplication of illustration effort. What is even worse, the editor is given no guidance regarding copyright protection, possible copyright infringement, location of the original document, and so on.

"Why not save time and just print the thing the way I wrote it?" This one question causes more imaginary arguments, beginning with "I should have said," than all the other remarks put together. The truthful answer is "because it would look awful," and the tactful answer would form a treatise on the art of editing. For the present, bear in mind that your editor is responsible for adherence to company policy, consistent terminology, maintenance of numerous standards, and many other tasks, as well as the more obvious points of grammar, spelling, and punctuation. Even if he did not have these other responsibilities, the company does not desire to be represented by publications exhibiting faulty grammar, misspelling, lack of organization, or uneven format.

"The editor makes changes because he likes to feel important." All human beings like to feel important in some way, and technical editors closely resemble human beings in this respect. However, an editor's importance does not derive merely from making changes. He makes changes because he feels they are necessary, and many thousands of printed pages contain material that an editor would have preferred to change, but allowed to pass in order to get the job done. An editor knows that his work is not judged on how many alterations it shows, but rather on its over-all quantity and quality. Even the top professional writers, in the arts as well as the sciences, are accustomed to having an editor make changes. The editor represents an objective, independent point of view, and a fundamental part of his job is to put himself in the place of the intended reader.

EDITOR'S QUALIFICATIONS

Now let's discuss the qualifications of a technical editor. Obviously, he knows how to write. His experience as a technical writer may be greater or less than yours; at any rate, his best talents lie in another direction. He has a background in one of the sciences, and has taken a number of courses in college-level English or journalism. He is trained in logical analysis and objective judgment. In his daily work he makes use of this background, plus (we hope) a great deal of tact. He must always balance his wish for perfection against the available time, manpower, and budget, and he must be able to handle a number of unrelated jobs at the same time without confusion. In addition, he must be able to give clear and explicit directions for typing, format, art work, typesetting, layout, and printing, which in turn means he must know something about these activities. In short, a technical editor must combine objective judgment with broad knowledge. The *perfect* technical editor is an infallible machine without emotions; none is known to exist.

PERSONAL FEELINGS

The technical editor almost always remains anonymous. The writer is known among his associates for the material he originates; in some types of technical publications he has the added reward of seeing his name in print. In our publications, his supervisor and the section manager are usually named as the responsible individuals. In any case, the editor remains unknown. That's the way it should be, and that's the way he wants it. The editor has no axe to grind, no wish to see his name on your work, and no reason to make changes except the desire to make the printed page as good a product as he can.

OBJECTIVES

Specifically, now, what does the technical editor try to accomplish? What is he really being paid to do? We have already mentioned some objectives, but let's summarize his principal functions. Note that *all of these represent the desires of management;* the editor happens to be the type of person who can carry them out most effectively. We can best describe his objectives by listing some of the questions the editor must ask himself.

A few of these topics, already mentioned in passing, are repeated here for continuity and emphasis.

1. Is this document complete? Does it cover the subject fully and with the appropriate amount of detail? Does it include all necessary references, and have these been checked? Does it have a table of contents, list of figures, list of tables, and so on?

2. Is the text clear? Concise? Well-organized?

3. Is material copyrighted by other companies included? Do we have permission to use it?

4. Is the rough art clearly understandable to the illustrator?

5. Are all tables and figures mentioned in the text, and is the meaning of each clear to the reader? Are all tables and figures actually present and complete in the draft?

6. Are figures, tables, sections, subsections, etc., properly identified and arranged?

7. Is each table arranged in the best manner?

8. Is each figure complete with title and callouts?

9. How will this document be reproduced? How many copies?

10. Does the document number agree with previous references? Are references to other documents correct?

11. Is this document properly numbered and titled? Does it have an adequate preface? Is it necessary to acknowledge use of copyrighted material?

12. Are all part numbers, model numbers, and drawing numbers correct?

13. Are switches, switch positions, indicators, and so on called out exactly as they appear on the equipment?

14. Will the typist be able to read the edited draft?

15. Are all necessary format instructions (i.e., paragraphing, headings, etc.) included or provided elsewhere?

16. Are there any special requirements regarding art, typing, layout, or printing?

17. Have all editing changes been checked by the writer? Has he answered all queries?

18. Will this publication create a favorable impression for the company? Will it reflect credit upon our department as a job well done at reasonable cost?

In addition, the editor must pay attention to the grammar, spelling, punctuation, terminology, and general style, be aware of company policies and objectives, and follow through on the production work to make sure that the printed page agrees with the edited draft and meets our standards of quality. He must work for uniform style and appearance among our publications, but must also try to keep up with improved methods in technical publications.

The technical editor is required to carry out as many of these objectives as he can with the least possible disturbance. He must work well with people, be tactful with the man who feels offended when his writing is changed, do much of his own research and checking, and keep the publication schedule in mind at all times.

FACING LIFE TOGETHER

The writer and the editor can learn from each other, and indeed must. By working with an editor the writer adds to his own skills and improves his writing. The editor, in turn, usually finds that the writer's draft is his principal means of learning the details of new equipment.

A properly run technical publishing operation will provide training in clear writing, the fundamentals of technical communication, and the basic printing and production processes. You, as a writer, can be of great help in such a project. Editors and writers will benefit from discussing together such matters as the following:

- Consistent terminology
- References to other documents
- Hard-to-spell words
- Words that sound alike
- When to hyphenate
- When to capitalize
- When and how to abbreviate
- Trade names
- Proper nomenclature
- Treatment of hazards to personnel and to equipment
- Research techniques
- Organization of written matter
- Simplicity and clarity
- Audience level
- Preparation of art roughs
- Elements of typesetting and page make-up
- Production and printing processes
- Illustration techniques
- Preparation of charts and tables
- Preparation of drafts
- Copyright responsibilities

CONCLUSION

We do not expect a writer to overlook an editor's mistakes. As a writer, you are naturally interested in seeing that your printed work is the best possible. And we know it adds a certain joy to life when you find a mistake made by the guy who keeps pointing out *your* mistakes. If an editor is touchy about *his* work, he doesn't last long. You can safely assume that the editor who works with you will be glad to discuss any changes which are not clear or not agreeable to you.

Ideally the writer and editor work in harmony as a team. The foregoing paragraphs have been written to encourage this teamwork by reminding both writer and editor that each learns from the other, that each is competent in his own field, and that the other fellow's job is often a great deal more complicated than it looks. Ω

About the Author . . .

ROBERTSON OSBORNE *is Senior Writer in the Automatic Programming Section, Equipment and Systems Marketing Division, Burroughs Corporation, Pasadena, California. He has worked for 17 years in various technical writing, editing, and public relations functions in motion picture laboratories, Goodyear Aircraft, Northrop Aircraft, the Los Alamos Scientific Laboratory, and Burroughs, and is a charter member of STWP.*

In his present position Mr. Osborne performs final editing on technical manuals and bulletins pertaining to Burroughs 205, 220, and B5000 computer systems and other products. He attended Johns Hopkins University and has a degree in physical sciences and a year of graduate work in physics at the University of Southern California. Among his hobbies are computer programming and the botany of arid lands. A successful writer of science fiction, he has had one story republished in two anthologies. He recently published a humorous article in Datamation.

You Can Help

Like any other magazine, the *STWP Review* depends heavily upon its income from advertising. One of our advertisers recently suggested a way that the Society's members can help maintain a high level of outside support. Emerson Clarke, a member of the Chicago Chapter and author of *A Guide to Technical Literature Production*, which has been advertised in our magazine, had this to say:

"The *Review* is an excellent advertising medium for this type of book, and the response has been very good. A suggestion: You might ask your readers to mention the *Review* when they place orders; it might surprise your advertising accounts if they knew how much business they had actually received from using the *Review*."

We hope you will remember Mr. Clarke's suggestion when you are ordering a book, answering an employment offer, inquiring about a service. Mention the *Review*.

Geoffrey Chaucer, Technical Writer

William A. Freedman

BEFORE THE CURRENT *technological era, the appellation "technical writer" and the term "instruction manual," certainly common enough words today, were almost unknown. And yet, as early as the fourteenth century, Geoffrey Chaucer wrote* Treatise on the Astrolabe, *an extremely well-written and organized instruction manual, even though written in the style and English of that time. This article compares Chaucer's style and organization to the accepted requirements for a good instruction manual.*

Technical writing takes several different forms: the scientific article, formal and informal; the technical report, also formal and informal; and the instruction manual. Each type serves a different purpose and is subject to its own rules of technique.

The instruction manual is an important form of technical writing and many authorities have established rules of style. An example of such an authority is Warren H. Deck, of the General Electric Company, who wrote an article, "What Makes the Good Instruction Book," in which he enumerated and discussed these rules.*

Today, industry accepts rules similar to those presented by Deck—rules made necessary by the technical writing demands of advanced industrial development. But it is interesting to consider how a technical writer undertook his task without the benefit of an organized pattern or doctrine.

AN EARLY MANUAL

In 1391 Geoffrey Chaucer started his *Treatise on the Astrolabe,* a remarkably good instruction manual. By some inborn instinct, Chaucer incorporated practically every one of the rules for a good instruction manual in his treatise. Unfortunately, for some unknown reason, Chaucer left the treatise unfinished. But what was completed makes interesting study material.

The treatise was intended to instruct his son, Lewis, in the use of the astrolabe—a very complicated instrument for a 10-year old boy. The astrolabe was an instrument similar to the sextant of today for use in determining angles of elevation, azimuths, latitude, etc. The recent appearance of a comet had prompted Chaucer to give his son such a gift.

Chaucer wrote in fourteenth-century English, but even the novice is able to understand the greatest portion of the treatise. For example:

> Lytle Lowys my sone, I aperceyve wel by certeyne evydences thyn abilite to lerne sciences touching nombres and proporciouns; and as wel considre I thy bisy praier in special to lerne the Tretys of the Astrelabie. Then for as mochel as a philosofre saith, "he wrappith him in his frende, that condescendith to the rightfull praiers of his frende," therefore have I yeven the a suffisant Astrelabie as for oure orizonte compowned after the latitude of Oxenforde; upon which, by mediacioun of this litel tretys, I propose to teche the a certain nombre of conclusions perteynyng to the same instrument.

While spelling may differ from modern English to a slight degree, phonetic pronunciation overcomes this difficulty.

COMPARISON THROUGH ANALYSIS

In the analysis that follows, a comparison is made of Chaucer's style with respect to the general rules governing modern instruction manual writing:

Clarity. Deck has written, "A garbled, ambiguous, and hard-to-understand presentation can make an instruction book containing correct and complete information completely worthless." The language of erudition in Chaucer's time was Latin, yet in the interest of clarity he wrote,

> . . . and naked wordes in Englisshe, for Latyn canst thou yit but small, my litel sone.

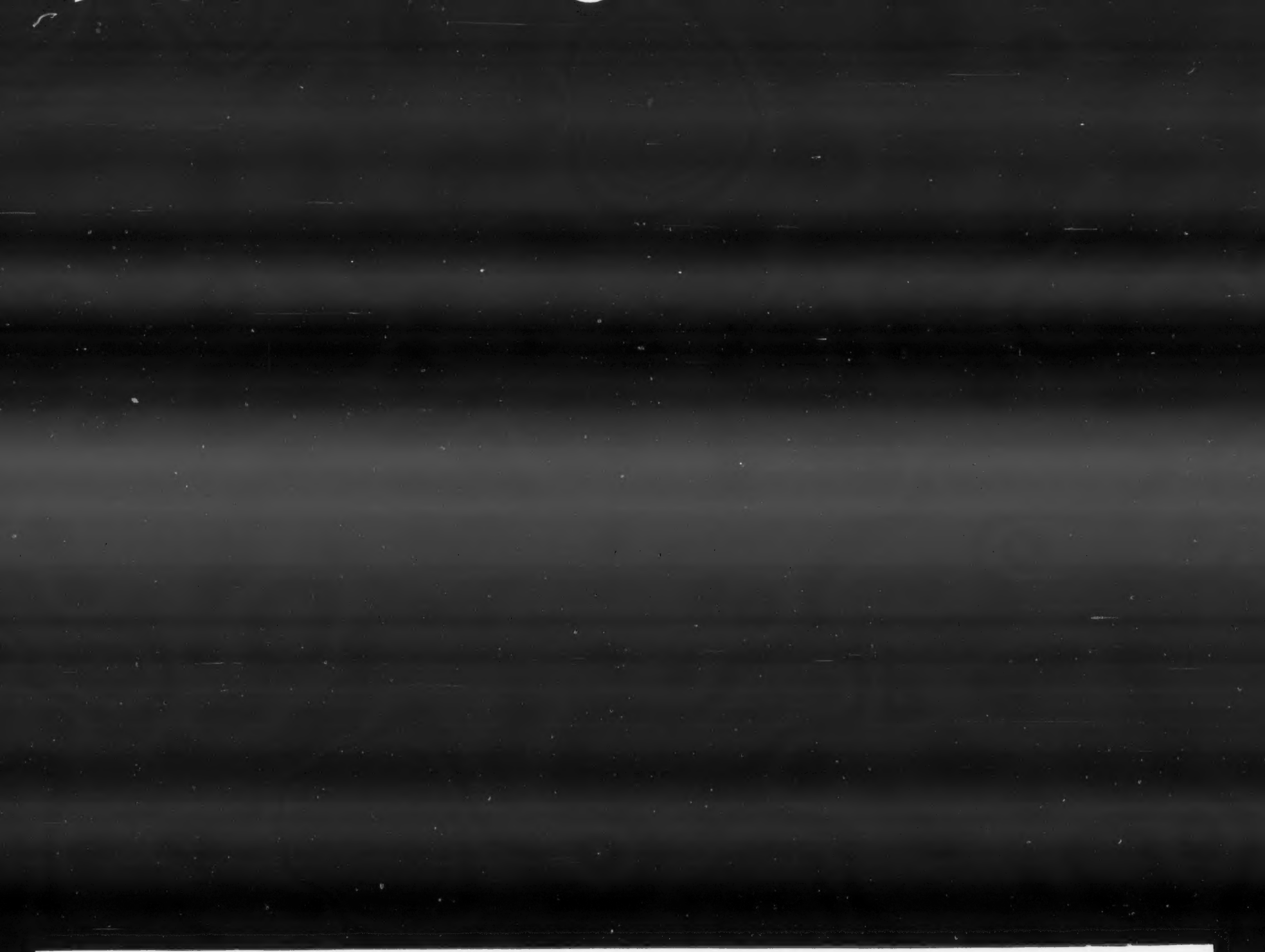
Chaucer was taking no chances that his instructions might be difficult to understand.

Organization. "Remember that your book is the reader's instructor . . . What he wants to know should be easy to find," says Deck. Chaucer, almost six centuries ago, was aware of the necessity for proper organization.

> This tretis, divided into 5 parties, wol I shewe the under ful light reules . . .

This segment of a sentence appears in the second paragraph of the introduction. Here, Chaucer explained what he was going to write about, and in what order he would approach the subject. He identifies each of the five parts in the following manner: Part I explains the instrument and all its component parts; Part II teaches the operation of a part of the instrument; Part III explains the use of longitude and latitude tables for star fixes, other locations, and what he calls altitude meridians; Part IV is a theory of explanation of

*The article originally appeared in the July 1955 issue of the *General Electric Review.*



Publications department organization	☐	☐	☐
Surveys of salary information	☐	☐	☐
Techniques for working with other people	☐	☐	☐

4. The Society's officers and directors believe the Society would be in a sounder position with only one publication:

(a) Do you agree: Yes..... No.....

(b) If the Society goes to one publication, should it, in your view: Retain present *Newsletter* .....; Retain present *Review* .....; Go to *Newsletter*-dominant combination .....; *Review*-dominant combination .....; What? (you tell us) .....

(c) What is more important in a Society publication: Efficient internal communication .....; Appearance presented to non-members .....; Both equally .....

(d) Which is more important to (1) effective communication: Meaningful content .....; attractive format .....; both equally .....; to (2) appearance presented to non-members: Meaningful content .....; attractive format .....; both equally .....

Name .....

Address .....

City and State .....

Chapter Affiliation .....

Return by November 15, 1961—Note: After completing this form, you may simply tear out, fold, and tape. No envelope is required.

SOCIETY PUBLICATIONS QUESTIONNAIRE

This questionnaire is directed to every member of STWP and a reply is requested from each of you. Before you start to answer, however, read the report of the Publications Review Committee and the Letter from the President which appear elsewhere in this issue of the *Review*. These are matters of great importance to the Society, so think carefully before you answer. Your honest views are the only ones worth reporting.

1. Do you now read:

	Not at all	Scanning	Some Items	Most Items	Cover to Cover
(a) *Newsletter*	☐	☐	☐	☐	☐
(b) *Review*	☐	☐	☐	☐	☐

2. Do you read:

(a) *Newsletter*	Never	Rarely	Sometimes	Mostly	Always
Articles on Society affairs	☐	☐	☐	☐	☐
Articles on technical communication institutes	☐	☐	☐	☐	☐
Articles on special chapter activities	☐	☐	☐	☐	☐
Articles on monthly chapter meetings	☐	☐	☐	☐	☐
Articles on individual members	☐	☐	☐	☐	☐
Articles on non-Society publications news	☐	☐	☐	☐	☐
Articles on education in technical communication	☐	☐	☐	☐	☐
President Speaks Column	☐	☐	☐	☐	☐
Office Notes Column	☐	☐	☐	☐	☐
Chapter Briefs Section	☐	☐	☐	☐	☐
Picture captions	☐	☐	☐	☐	☐
Death notices	☐	☐	☐	☐	☐
Humorous items	☐	☐	☐	☐	☐
Personnel-wanted ads	☐	☐	☐	☐	☐
Situation-wanted ads	☐	☐	☐	☐	☐
Book ads	☐	☐	☐	☐	☐
Publications services ads	☐	☐	☐	☐	☐

(b) *Review*	Never	Rarely	Sometimes	Mostly	Always
Articles	☐	☐	☐	☐	☐
News and Views	☐	☐	☐	☐	☐
Letters	☐	☐	☐	☐	☐
Editorial Notes	☐	☐	☐	☐	☐
Book Reviews	☐	☐	☐	☐	☐
Advertisements	☐	☐	☐	☐	☐

3. Would you like to see these items in Society publications:

	Yes	No	Maybe
News notes on new equipments/processes	☐	☐	☐
New ideas (for saving time/money/effort)	☐	☐	☐
More personnel/situation wanted ads	☐	☐	☐
Summary state-of-the-art articles	☐	☐	☐
Series of articles on a single theme	☐	☐	☐
Extensive profiles of individuals	☐	☐	☐
Map showing chapter locations	☐	☐	☐
News items in your subject-matter specialty	☐	☐	☐
References to relevant articles in other magazines	☐	☐	☐
Recommendations for your personal bookshelf	☐	☐	☐
Techniques of management	☐	☐	☐
Articles on problem areas in tech publications	☐	☐	☐
Acceptable new technical terms with definitions	☐	☐	☐
Notes on Mil Specification issuances and changes	☐	☐	☐
Automation and information retrieval	☐	☐	☐
Publications department organization	☐	☐	☐
Surveys of salary information	☐	☐	☐
Techniques for working with other people	☐	☐	☐

4. The Society's officers and directors believe the Society would be in a sounder position with only one publication:

(FIRST FOLD)

(SECOND FOLD)

PLACE
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STAMP
HERE

Dr. Vernon M. Root
Applied Physics Laboratory
8621 Georgia Avenue
Silver Spring, Maryland

movement of celestial bodies; and Part V is an introduction to astrology (the old term for practical astronomy). Chaucer had explained the logical sequence that he was following in his instruction procedure.

Direct Instruction. Deck writes, "Speak directly to the reader as though you were instructing him in person. Use the word 'you' frequently and give commands as you would in personal teaching, but help him to carry out your command." How more personal could Chaucer have been in writing the following:

> The est syde of thyn astrelabie is clepid the right syde, and the west syde is clepid the lefte syde. Forget not thys, litel Lowys.

The entire treatise is written in this conversational tone.

Proper Division of Presentation. "Plenty of subheads will help your reader," according to Warren Deck. Chaucer divided his treatment into five main groups, Part I being divided into 23 subgroups, each with its own heading; Part II, as much as was completed, already had 40 subgroups. In Part I, Chaucer described the astrolabe in detail. He wrote,

> Here begynneth the descripcioun of astrelabie.

Part II was meant to explain the functions of the astrolabe, or

> . . . the conclusions of the astrelabie.

Analysis of Audience. Deck warns the technical writer, "To meet the user's needs, present the information from his viewpoint." Chaucer wrote,

> . . . and somme of hem (operations of the astrolabe) ben to harde to thy tendir age of X yere to conceyve,

indicating that he was fully aware of the limitations of his 10-year-old son.

Short Sentences. "Short sentences . . . will help your reader." This instruction is contrary to the style of the fourteenth-century author, but Chaucer has broken with tradition in attempting to bring the treatise to the level of his young son. A comparison of the treatise with any of Chaucer's other works will bear out this statement. See, for example, the quotation cited under the heading "Direct Instruction." Both sentences are short; and sentences are short throughout the treatise.

Simple, Exact, Concise, Coherent. "Essentially the style must follow fundamental rules. Keep it simple, exact, concise, and coherent. To do these simultaneously is not always an easy task," says Deck. The third of these four requirements is the only one that Chaucer seems to have overlooked, but brevity or conciseness is a virtue that twentieth-century writers perhaps have a tendency to overdo. Experts warn us that there is a grave danger in not giving sufficient information. Chaucer's intent was to avoid this danger.

Chaucer appears to have followed all the rules. Further, he used some ideas that might well be noted by many of today's technical writers.

> Now wol I preie makely every discret persone that redith or herith this litel tretys to have my rude enditynge for excused, and my superfluite of wordes, for two causes. The firse cause is for that curiose enditynge and harde sentence is ful hevy at onys for such a child to lerne. And the second cause is this, that sothly me semith better to writen unto a childe twyes a gode sentence, than he forgete it onys. Ω

About the Author . . .

WILLIAM A. FREEDMAN *is presently employed as an engineering writer in the Technical Data and Publications Unit of General Electric's Advanced Electronics Center located at the Cornell University Industry Research Park, Ithaca, New York. He studied technical writing at Rensselaer Polytechnic Institute under the late Professor Chris Sanford, long known as a kind friend and mentor to many in this field.*

Mr. Freedman is a member of the Society of Technical Writers and Publishers, the National Society for the Study of Communication, and the Institute of Radio Engineers.

Contributions Are Needed

Material of interest to technical writers, editors, publishers, and persons in allied fields is needed for the *STWP Review*. If you have an article already written which you want to submit for publication, send it to us. If the idea hasn't been put down on paper, just send along the outline you plan to use in your writing. We'll evaluate your outline and let you know whether we think our readers will be interested. In the case of a written manuscript, the Editorial Board decides whether an article will be accepted, and their opinion is based on the uniqueness of the material, its clarity, and the potential it has for satisfying the needs of the *Review* readership.

Possible topics are new developments in the publishing field, publication production methods, management procedures, word usage, style, illustration preparation, and information theory.

In addition to main articles, we can use small items of news about STWP members, descriptions of new products of interest to publishing personnel, and methods you use in your everyday work which may not be widely employed.

Your contribution will be gratefully received.

THE EDITORS

(FIRST FOLD)

Editor's Marks

George A. Stevenson

Technically speaking, an editor is not a proofreader and a proofreader is not an editor. An editor usually has the authority to impose marks on double-spaced manuscript copy, adding or deleting copy, changing context and meaning of copy, or altering the copy in any manner before the copy is finalized for reproduction or printing. A proofreader, on the other hand, does not have this authority. He may only proofread the copy after it has been reproduced, and in the case of letterpress copy, change the errors made by the typesetter (or compositor) on the typesetting machine by referring to his galley or press proofs. His copy is usually single spaced.

These two distinct and dissimilar functions of the editor and the proofreader made it imperative that standard marks be established to have some control over the great volume of copy being turned out for the Government Services for handbooks and technical manuals. The burden was on the publications departments of companies who had contracts to produce these data. The larger companies made up and adopted standard marks of their own for editing and called them "proofreader's marks" (and still do) because their marks were extracted from the standard proofreader's marks which have been passed down through the decades.

Having been placed in a position to handle copy for quite a few companies, large and small, the writer soon learned that a great need existed for standard marks for editors. The inconsistences that existed among different companies was alarming. The writer made a comprehensive survey and analyzed the marks from seven different companies to determine which marks were most widely used.

The editor's marks that follow are a result of this survey.

*This article is adapted from material published by the author in *Graphic Arts Handbook and Products Manual* (Torrance, California: Pen and Press Publications, 1960).

Delete, take out	The symbol for proofreader's is written thus ℓ But in manuscript, shortened like this: Mark
Insert a period	Place it in the text thus⊙ Draw a circle around it. You may do it this way Use a lead line and a caret.
Delete a period	Always delete it when it is not wanted.
Insert a comma	Insert a comma in text with a caret or draw a circle around it.
Changing a period to a comma	Add a tail to the period. Use a caret.
Changing a colon to a semicolon	Add a tail; insert a caret.
Insert a question mark	Add the question mark with a caret. What?
Insert a colon	Add the colon: Draw a circle around it.
Insert an explanation mark or an apostrophe	Add it! It's inserted with a caret.
Insert a semicolon	Add the semicolon if required, using a caret.

Insert a hyphen	By=pass. Or use a circle like this: by⊜pass
Insert a dash	In this mannerAor do it this way: In this manner⊖or . . .
Insert quotation marks	Write in text and draw circles: He said, ⓑI will not.ⓑ
To delete any of the foregoing marks and to close	Destroy the mark and close: Proof reader's Marks
Delete a word and close	The ~~wrong~~ font.
Delete a letter and close	Written thus.
Deleting sentences, rules, and copy	~~Draw a solid line through the copy and use a delete symbol.~~
Delete and correct misspelled words	Transformers have secondary ~~widnings~~ windings.
Delete and correct improper numbers	89786 ~~89686~~ Always write a number over again.
Close up	Counter clockwise
Insert one space between characters	In this#manner.
Insert a space between lines	# Show a single space symbol in this manner.
Insert two or more spaces	2# Show more than a single space like this.
Transpose to read properly	Writtne for a purpose. Or rewrite the word: ~~Writtne~~ Written for a purpose.
Transpose words and insert a period	In order reverse It will read: In reverse order.

Inserting lengthy phrases or sentences	The requirements of this specification are not suitable for the purpose intended.
Inserting a separate page of text	Draw a horizontal line, as indicated below, to the exact width the material will occupy. Use reverse arrows. INSERT A Key the insert to the manuscript copy with "INSERT A," "INSERT B," at the right margin.
Inserting a separate page of text when "breaking" into text copy	Key the insert as above to the manuscript copy. INSERT B Use a caret and a lead line to the right margin.
Stet (let it stand)	Do not make ~~this~~ stet correction. Place dots under the word or words.
Change capital letters to lower case (called "striking down")	Do not use CAPS. The copy will now read: Do not use caps.
Change lower case word to capital word	Draw three parallel lines under the word: Introduction. It will now read: INTRODUCTION.
Change lower case letter to capital letter	The U.S. government. It will now read: The U.S. Government.
Use bold face letters	Use heavier letters. Draw a circle around the word and write bf in the right margin.

Use Roman letters	Use Roman letters. Draw a circle around the word and write rom in the right margin.
Use Italic	Use Italic. Draw a line under the word and write ital in the right margin.
Changing numerals	Draw a circle around the numeral or spelled-out numeral and write it the opposite of the way it appears: Remove 12 bolts from two covers. It will now read: Remove twelve bolts from 2 covers.
Raise copy, move up	123456 123456 654321
Lower copy, move down	456789 456789
Move to right as far as mark indicates	The first line will then become indented instead of being flush left.
Move to left as far as mark indicates	The first line will then become flush left instead of being indented.
Incomplete: "out see copy"	The sentence does not make sense where caret indicates. Write osc in right margin.
No paragraph	Do not make a new paragraph. Write no ¶ in the right margin.
Add an exponent	10^{3} grams
Add a subscript	H_2O
Insert brackets where indicated	The result: [H_2O]
Insert braces where indicated	The result: {H_2O}
Insert parenthesis where indicated	The black box (see Figure 2.2, item A) is now connected.
Align text or columnar matter vertically	1234567 34567 1234567 4567
Make a new paragraph	Make a new paragraph. ¶ The copy will be indented.
Centering copy	SECTION I INTRODUCTION ctr
Continuing copy from page to page when page is not full	Show a continuation line at the bottom of the page with an arrow, and write the word "more." more

About the Author . . .

GEORGE A. STEVENSON *is president of Pen and Press Publications, Inc., Torrance, California; director of the School of Reproduction Arts; and a staff member of Military Data Consultants, Inc. He is author and publisher of the* Graphic Arts Handbook and Products Manual, *which has been widely acclaimed. Mr. Stevenson is a technical writer and has supervised art and reproduction departments. He is an active lecturer and consultant on graphic arts in the Los Angeles area.*

New Editor Appointed

A. Stanley Higgins, heretofore Assistant Editor of the *Review*, has replaced Allan Lytel as Editor effective with this issue.

Allan Lytel, who had virtually become an institution as Editor of the *STWP Review* and its predecessors during his five years in that position, has resigned. The circumstances which prompted his action are recorded in the Letter from the President elsewhere in this issue. Allan has made a contribution to the Society through his long editorship of the *Review* that can be matched by few men. He has likewise made a lasting contribution to the advancement of technical communication both as an art and as a profession. His stature, his determination, and his dedication to the cause of technical publications stand as lodestars for current and future generations of Society stalwarts.

Filling the shoes of an Allan Lytel is no small task nor one to be undertaken without humility. The Society is fortunate to have in Stan Higgins a man of experience in the publication of the *Review* whose intellect, integrity, and judgment can be relied upon to carry into the future the same ideals of excellence and leadership which have been exemplified in Allan's editorship of the Society's journal.

I am sure that each of you will give Stan the same cooperation and support that have in the past been accorded Allan. I wish him every success in this new undertaking.

VERNON M. ROOT
President, STWP

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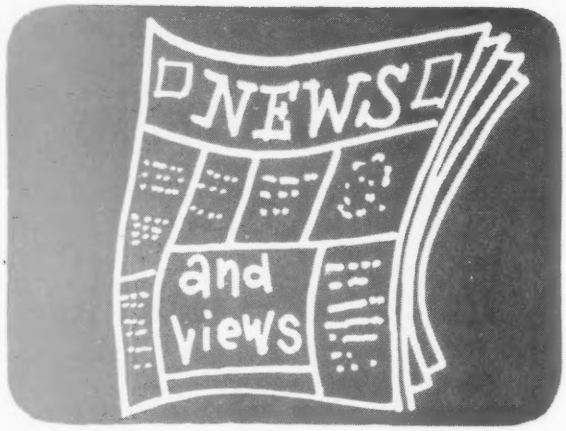


By A. Stanley Higgins

THE READERSHIP SURVEY published in the July issue of the *Review* was participated in by 129 people, which is only 4 percent of the STWP membership. Consequently there is doubt of the statistical validity of the questionnaire returns. However, those forms which were returned gave some very worthwhile suggestions for improving the *Review*, and the data on salaries are certainly of interest to most of us, even though we can't say the figures are statistically significant.

The first section of the form was designed to show reader preference for types of articles and features on the basis of relative numbers assigned by the respondent to the specific content of the July issue. The overwhelming favorite of the articles published in that issue was "Patterns of Word Formation," by Frank Smith; this choice perhaps indicates that the magazine should contain more articles on the basic tools of the writer and editor—semantics, syntax, and other universally applicable parts of grammar.

Among the features rated, Editorial Notes was found to be most interesting to the respondents, with News and Views placing second. A majority considered the new *Review* format to be an improvement, but many readers seemed to notice little difference and several indicated no real concern about the appearance of the page. The opinion of the latter segment was pretty well stated by one respondent who said ". . . the articles themselves are what I'm interested in, and how they are dressed up doesn't mean much to me unless the format is just terrible."

MANY IDEAS for topics for future articles and features were suggested. For article subjects, the preference was for writing, with editing running second. Other topics were, in the order of respondents' choice, publication production methods, technical publishing problems, illustration procedures, word usage, managing techniques, English, specifications, proposals, new developments, promotional writing, manual writing, style, and information theory. Many other possibilities were listed, ranging from Russian technical publications to medical illustrations. Interestingly, only two respondents listed professional status.

Suggested feature subjects were new developments, salary surveys, personalities, employers, organization, visual aids, standards, STWP facts, publicity, reporting, methods, specification changes, and military handbook standards.

SALARY DATA from the questionnaire were analyzed in terms of writers, writer-editors, editors, and managers versus salary bracket for four major geographic regions of the country. Data from the Northwest and Southeast were too few to be meaningful. Data from the Northeast and Southwest are essentially the same. In both cases the overall average salary is about $9000, and in both there seems to be a tendency for salaries to increase as one moves from writer to writer-editor to editor to manager.

Another analysis was made disregarding geographic differences and considering salaries of writers, writer-editors, editors, and managers as a function of the size of the company for which they work. Among the writers, both relatively small companies (50 to 100 employees) and moderately large companies (2500 to 5000) pay better than either the very large (10,000 to 25,000) or the middle-sized (200 to 2000) concerns.

For writers-editors, there appeared to be a slight trend for salaries to increase with company size. For editors, there is a marked and apparent positive correlation between company size and salaries. In the case of managers, the picture is somewhat clouded by the fact that the maximum reportable salary was "$11,000 and above." As the company size reached about 2500 people, this factor limited the returns so that the curve became flat. For companies smaller than 2500, however, there is a distinct positive correlation of company size with salary.

SIZE OF PUBLICATIONS groups, as indicated by the questionnaire, varies quite widely. Most of the respondents indicated they worked in groups that have no more than 10 people in them. Close behind were the 25 to 50 and the 50 to 100 category. Several people reported their groups to be in the 100 to 900 range, and two replies indicated publication units having more than 900 personnel.

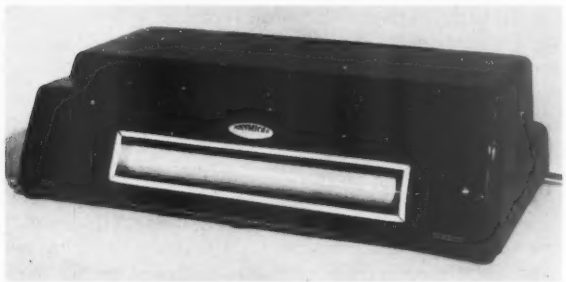
Most of these publications groups were a part of the company's engineering organization. Others reported to—in the order of the greatest number of returns—services, administration, marketing, research, public relations, and production.

WANT TO COMPARE YOUR INCOME? An article in the *1961 Writer's Yearbook* (published by *Writer's Digest*, Cincinnati) gives the results of a 1960 survey of the Society of Magazine Writers. That group is restricted to those who, during the year preceding application for membership, published six or more articles in major magazines. The survey brought replies from about 40 percent of the organization's 180 members. Here is the breakdown of salaries reported:

Less than $5000	1.5%
$5000 to $10,000	24.0
$10,000 to $20,000	45.3
$20,000 to $80,000	29.2

According to the article, technical writers earn from $4000 to $25,000. Within that range the writer earns, when employed by the Federal Government, $4160 to $11,800; by news magazines, $6000 to $25,000; by trade magazines, $5000 to $25,000; and by technical magazines, $4000 to $18,000.

NEW OFFICE COPIER made in France has, according to Burton Mount Corporation, New Hyde Park, New York, several features of particular interest to publications personnel. The U.S. distributor for the device, called the Polymicro, claims the machine will turn out sharp glossy prints from a contact negative in 10 seconds at a cost of



New office copier, the Polymicro, which French developers claim will copy "anything that can be seen."

less than 10 cents per print. It can also be used to make stat prints, translucent masters, lithographic proofs, and office copies (of anything, regardless of color, "that can be seen"). The machine is completely automatic and closely resembles the usual office copier (see accompanying photograph). Available in a wide range of sizes, the device is priced at $200 to about $2000.

THE NEW MAGAZINE known as *The Technical Writer* showed a marked improvement in its second issue, which was dated August 1. A well-balanced content seems to be the strong point of the new periodical. It is also a convenient size, measuring 5½ by 8½ inches, and has an interesting, though entirely inconsistent (purposely, I assume), format. One feature the magazine apparently plans to run each issue is an article on some city or site where publications activity is going on; the feature includes job opportunities at that place. In the August issue, Cape Canaveral and nearby Orlando, Florida, were covered.

I must admit that when I received the first issue of *The Technical Writer*, I was unfavorably impressed. The second

Quick-reference help for professional writing

● Report Writers' Handbook
CHARLES E. VAN HAGAN, Head, Publishing Division, U. S. Naval Ordnance Test Station, China Lake, Calif.

Analyzes and discusses all kinds (short-form, progress, handbooks, manuals, etc.) and all phases of report preparation. A practical, instantly usable guide to preliminary planning; the actual writing; use of appropriate supporting material, with special attention focused on the selection and preparation of illustrations and tables. Shows typical examples for each stage in report preparation and production.
Sept., 1961—280 pages—6 x 9"—illus.—$6.75

● A Writer's Guide for Engineers and Scientists
ROBERT R. RATHBONE and JAMES B. STONE, both of Massachusetts Institute of Technology.

A unique, how-to approach analyzing common technical writing problems. Presents actual reports showing different views of the same problem, with a different problem in each chapter. Concentrates on organization and expression of thought, rather than on format. Covers in depth such neglected topics as: satisfying reader's needs; achieving the proper pace; reporting negative results; writing the introduction; using the pronoun "I", etc.
Sept., 1961—288 pages—6 x 9"—illus.—$6.60

● Technical Writing Techniques for Engineers
JOSEPH RACKER, Vice-President and Chief Engineer, U. S. Electronics Publications, Inc. New York City.

Furnishes all the "tricks of the trade" from the author's 16 years of technical writing experience. Provides step-by-step guidance on how to select, organize, illustrate, and write-up technical material to readers of various levels of understanding. FIVE different specific sets of rules show how to write at; 1. operator's or nontechnical level, 2. field or technician's level, 3. depot, advanced technician's or junior engineer's level, 4. engineer's level, 5. advanced engineer's or scientific level. Includes carefully screened glossaries of Air Force, electronic, computer, guided missile, and other specialized terms.
Oct., 1960—244 pages—6 x 9"—illus.—$6.95

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☐ **Do you have three or more years' Engineering Writing experience that may be related to our needs for large-scale, advanced electronic systems?**

☐ **Could you accept the responsibilities, develop the schedules and meet deadlines in a way that would be expected of you as a professional employee? Could you inspire your technical writer associates to follow your leadership?**

☐ **Are you interested in continuing your own self-development in Company-sponsored educational programs?**

☐ **Would you like to continue your career as a professional employee of a diversified, technically oriented Company that is an acknowledged leader in the market areas in which it competes?**

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Upon receipt of a detailed summary of your experience and background, we'll send information that will help you make an objective comparison. Relocation assistance will be provided. All qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

178-02

WRITE IN CONFIDENCE TO
Mr. George B. Callender
Engineering Administration, Section T-10
Heavy Military Electronics Department
Court Street, Syracuse, N. Y.

GENERAL ELECTRIC

issue showed a much more professional handling, and it appears that the magazine is now off on the right foot. Incidentally, I understand that Allan Lytel is now Midwest Editor for the new monthly.

Alvis W. Howard, Executive Editor of the magazine and a member of STWP, writes me that he can use articles, news items, cartoons, and cover illustrations. His address in Huntsville, Alabama, is 810 Stanhope Drive, NE.

A POPULAR TOPIC among research and development speakers is the knowledge explosion and the attendant growth of recorded technical information. In a recent issue of *Aviation Week*, General B. Holzman, of the Air Force Cambridge Research Laboratories, posed this hypothetical case to illustrate the fast pace of technical publishing: Imagine a chemist who can read 30 languages fluently at a rate of four papers per hour. Further suppose that, on January 1, 1959, he began to read all the papers of just chemical interest published in 1958. If he read continuously for 40 hours per week, by January 1, 1960, he would have found himself 10 years behind in his reading!

TECHNICAL WRITING AS A CAREER is the title of a booklet by Allan Lytel published recently by Bellman Publishing Company, Cambridge, Massachusetts. The 28-page pamphlet is part of Bellman's vocational and professional monograph series. Topics covered in the new offering are Technical Writing—A New Profession; The Job of the Technical Writer; Salaries of Technical Writers; Entering the Profession; Related Occupations; and The Outlook for Technical Writing.

A SLICK-PAPER MAGAZINE is apparently what some of our readers think of the *Review*. In some of the replies to the questionnaire in the July issue, suggestions were made to "get rid of the expensive slick paper." We double-checked with our printer and found that those readers share a popular misconception that enameled papers are higher in price than the dull coated ones. As a matter of fact, before we contracted with the present printer of the *Review* we were thinking of going to a dull stock but found the cost prohibitive. Of course it is true that many enameled papers are expensive, but only for the premium grades. The stock we use is not a premium grade. We're told that, for our purposes, it would be impossible to obtain a dull-coated paper except in a premium grade—and hence at a higher cost.

KENT BROWNING, program chairman of the Pittsburgh Chapter, was featured in a recent issue of the Westinghouse News, biweekly publication that is distributed to all Westinghouse plants. Subject of the article was Kent's "Dunworkin Ranch" and his stable of prize-winning quarter horses . . . **BETTY KIRCHHOF,** Book Review Editor of the *Review*, has resigned from her position at Battelle in Columbus. We're happy to report that she's back in Pittsburgh, where she's now employed by Crucible Steel Company. Ω

EFFECTIVE REPORT WRITING. Norman B. Sigband. 688 pages. New York: Harper & Brothers (1960). $6.75.

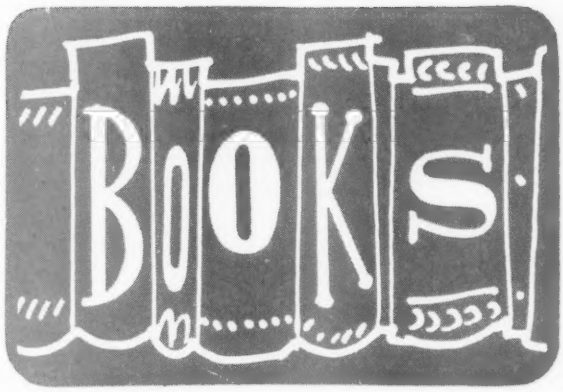
Dr. Sigband has added another volume to the many that have been published recently in the general area of report writing. Not only has he added another volume, but he has added a rather heavy and comprehensive one. The book runs just under 700 pages, and the price is just under a cent a page. This makes it, in the experience of this reviewer, about the longest and most expensive of the current books on report writing.

It should be made clear in this review, if not in the title of the book, that Dr. Sigband has not written exclusively about report writing. The book is divided into three parts: report writing, business letter writing, and a bibliography and reference guide. Dr. Sigband's coverage of reports is quite extensive; he does not deal only with engineering and scientific reports. Almost in a subtitle position are the words "For Business, Industry, and Government" signifying that this book may be used for courses in business administration, industrial management, and governmental administration. In fact, this extensive coverage may very well be a drawback in the usefulness of the book. It is difficult to see how a teacher, whether in college or in industry, could make good use of many of the rather specialized chapters in this book. On the other hand, as a reference text in a college or company library this book would probably serve extremely well.

Part I, Report Writing, may be divided into several subparts. The first four chapters are rather general and have to do with the accumulating of information for the report. The second four chapters have to do with the construction of the report. The next three chapters discuss short informal reports and long formal ones. The next three chapters deal with report writing in specialized areas. These are followed by four chapters of a more or less miscellaneous nature: employee communications, technical writing, oral reports, and the letter of application. Part II, Business Letter Writing, is made up of four chapters, one of them rather general; the other three are about specialized business letter types. Part III contains a listing of bibliographies in the major fields of commerce and engineering and a writing mechanics handbook. There is a good, usable index.

Now for some critical comments. Probably the best quality of this book is its extensive coverage. Dr. Sigband has included many listings of standard abbreviations; outlines of various forms of reporting; examples of tabular and graphical presentation; sample pages of reports, letters, and other documents; and samples of good and bad style. Another excellent characteristic of the volume is the generous inclusion of questions for discussion and exercises at the ends of all chapters. It is quite clear that Dr. Sigband has not refrained from including material because it was difficult or inconvenient. He should be commended for an unusually thorough job.

Some of the very characteristics that this reviewer has listed as favorable create a possible weakness in the book. As already indicated, the extensive coverage of the book leads it to be one which may be difficult to use as a collegiate textbook. If there were such a course as "general business writing" given in a university, this book might be a test for it. Dr. Sigband's attempt to adapt the book to college students and people in industry, business, and government has given him some difficulty; in trying to write for many audiences, he has written for none. An example of this occurs in his first four chapters, where he tries to define report writing and gives information about what he calls *research*. Much of this material seems to be of the typical academic flavor and thereby contradicts Dr. Sigband's own statement in the Preface: "There is little 'ivory tower' reflection included . . ." For the professional person in business, industry, or government these chapters are almost useless. Unfortunately, Dr. Sigband seems to be writing about the collegiate "term paper" through his early paragraphs. For example, the material on library research is quite academic and very elementary. In



fact, it is written after the rather old-fashioned, schoolbook style of research and does not recognize the professional type of literature search at all.

His chapter on tabular and graphical presentation surveys the field quite well, but again it is rather undirected, is at a level too high for most report writers, and unfortunately is very weak in coverage of photography and omits entirely the other pictorial methods of presentation.

Part II on business letter writing is really thorough and may be considered by many readers to be the best part of the book. The inclusion of many samples of form, content, and style is commendable.

A final note. If one wants a book that covers the entire field of business report writing, Dr. Sigband's book may be a good one. As a book from which individual will actually learn how to write a report, it may not be very useful.

Robert Sencer

RUSSIAN FOR SCIENTISTS. Dennis Ward. 200 pages. New York: The Macmillan Company (1960). $3.95.

Russian for Scientists was written specifically to teach those aspects of the Russian language required to be able to read and understand highly technical material. Contrary to what one might expect, it is much easier to learn to read technical Russian material than it is to learn to read, say, Dostoyevsky. This is primarily because of the relatively small vocabulary used in technical literature and because so many scientific terms in Russian are almost identical to their English counterparts.

Mr. Ward, head of the Russian Department at the University of Edinburgh, has limited the scope of the book to a recognition course. Thus the more difficult task of translating English into Russian is not considered at all, and the material on pronunciation is limited to a discussion of the basic rudiments. In the area of grammar, Mr. Ward introduces the concept of the "absolute minimal grammatical marker," which he defines as the very smallest element of a word necessary for the recognition of its grammatical form. He then concentrates on developing these word-elements for the student.

The text was designed to be used without a teacher and, other than for matters of precise pronunciation, there is probably no reason why one cannot learn material of this sort without the aid of an instructor. The author claims that with several months of study one should be able to read, with frequent references to a dictionary at first, some such journal as the *Transactions of the Academy of Sciences of the USSR*. As a matter of fact, the translating exercises, starting about the middle of the book, are taken from that journal.

On the basis of my own study of Russian, I feel that this book fulfills a real need and is a well planned and well written text with which one can indeed learn to read technical Russian.

Bert Helfinstein

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INTRODUCTION TO NUCLEAR ENGINEERING (Second Edition). Raymond L. Murray. 373 pages. Englewood Cliffs, N. J.: Prentice-Hall (1961). $12.00.

Dr. Murray has undertaken a most difficult task in discussing a complete field containing the varied disciplines associated with nuclear technology. This difficulty is increased because of the rapid advance in knowledge and application of nuclear science to the engineering fields. He has had to exercise great care in a selection of topics which will convey an understanding of the fundamental aspects of the field without becoming bogged down in technical details. Certainly there is a matter of personal opinion concerning the exact material and the form of presentation in a book of this nature. The only valid criticism is one in which there is a question of thoroughness, of distortion of emphasis, or of lack of clarity. Except for one point which will be considered below, this text bears up well indeed under close examination on each count. This is particularly true if it is compared with similar texts in other fields.

The second edition brings the original text up to the moment, so to speak, as it has included the major developments of the past six years. These developments are of considerable importance in the field and have been gained only at great expense in research and development effort.

There is the single critical comment which is, I believe, a consequence of the emphasis in this text on breadth rather than depth. It can be made of several other texts intended for a more penetrating investigation of portions of this field. A totally unrealistic impression is given concerning the effort and expense necessary to develop and produce a nuclear reactor. The simplified picture necessary for an introduction is, in many cases, quite remote from models which are employed in actual design work.

As an example of this point it might be recognized that neutron physics calculations are highly automated and that extensive use is made of the modern high-speed electronic computers. The time is past when a reactor design can be based upon semi-empirical methods or highly simplified models for which an analytic solution is possible. A chapter containing a discussion of the numerical techniques used in computer analysis plus a discussion of the extent of the use of computers in the field is in order. In this manner, the student could be introduced to the problems by means of simple explanations without being given the impression that these explanations represent adequate computational techniques.

R. J. French

MODERN FLIGHT DYNAMICS. W. Richard Kolk. 288 pages. Englewood Cliffs, N. J.: Prentice-Hall, Inc. (1961). $10.00.

This book, written by one engaged in advanced space system analysis, is no "champagne flight" for those who would survey the latest in aeronautic or astronautic techniques. It is a book for the student—perhaps an engineer faced with dynamic control problems.

The author, who has taught stability and control of aircraft at the U. S. Navy Test Pilot School, has adapted his lecture materials to book form. The result is a logical progression by which considerable skill in flight dynamics analysis can be achieved. The basic terms are defined and illustrated. Mechanics, equations of motion, and mathematical aspects of the subject are evaluated and applied. Aerodynamic forces and moments are discussed, and their effect on aircraft stability are presented with practical illustrations. Flight control systems are given comprehensive coverage: assessing the advantages and disadvantages of the simple mechanical system, the more refined electrical and hydraulic power boost systems, and the irreversible power operated control system with its inherent lack of pilot "feel."

The schematic representations of the systems described are most helpful in amplifying the text. The author concludes with

analyses of rocket stability (tumble and spin) and celestial mechanics. Either topic could be readily expanded to book length, but the material presented is all the more vital because of its condensation.

Reading ease is enhanced by placing mathematical techniques and analyses pertinent to the subject in appendixes. The summary material at the end of several chapters is helpful in forming a perspective for categorizing the many details presented.

The book is recommended to those who would work at being enlightened on the subject. It will serve well to guide the educational process and will remain as a handy reference tool in one's technical library.

Joseph H. Walton, Jr.

KINEMATICS AND LINKAGE DESIGN. Aller S. Hall, Jr. 162 pages. Englewood Cliffs, N. J.; Prentice-Hall, Inc. (1961).

This book presents a unified and easy-to-understand approach to the fundamental principles of linkage design. While the emphasis is on the understanding of ideas rather than on the solving of great volumes of problems, a sufficient number of design problem examples and exercises are included to aid in the formulation of ideas.

The book was planned as a text for a one-semester introductory course in kinematic design. The author has developed and taught graduate classes at Purdue University for 11 years. He has written books and articles in his field and has frequently served as a consultant in mechanism design problems.

If your use of this information is a matter of general understanding or even curiosity, the generalities of mechanisms can be harvested from this book without excessive labor. If your problem is to obtain detailed knowledge of kinematics and linkage design, the book can be studied with little fear of becoming lost in a jungle of mathematics. If your desire is to be entertained, try *Please Don't Eat the Daisies,* by Jean Kerr.

Raymond W. Watts

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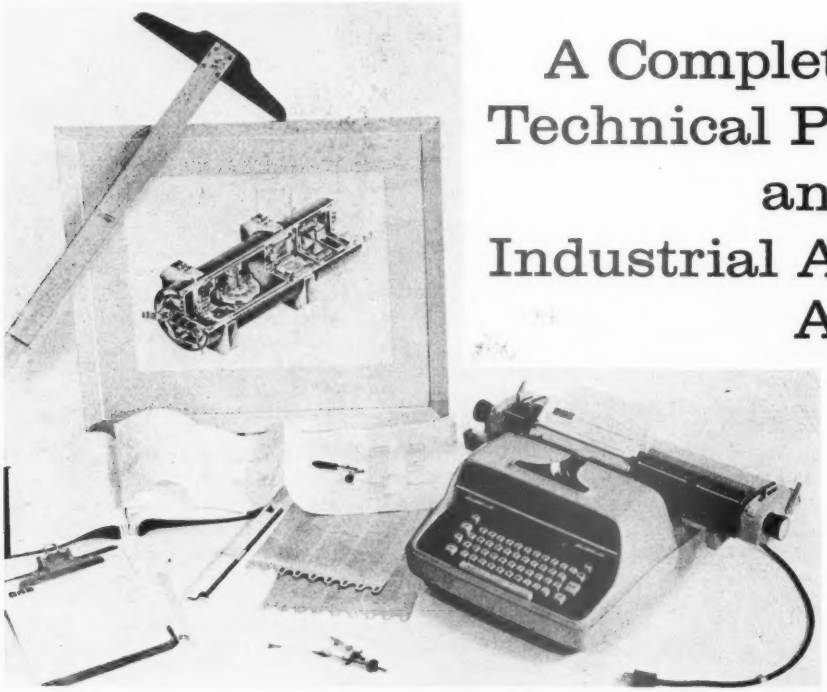

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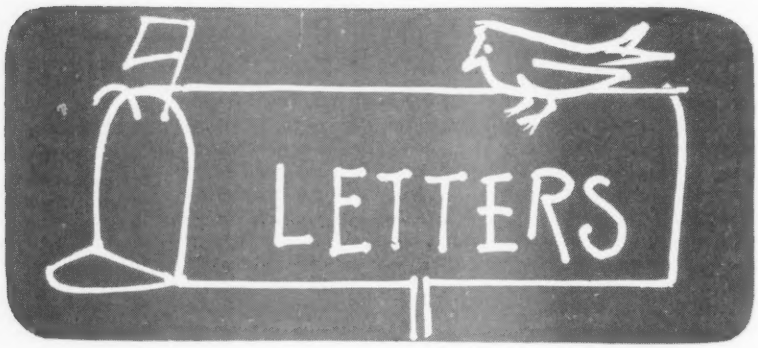


To Editor, *STWP Review*:

One of the least profitable avocations of these times is our preoccupation with measurability factors and classification. The technical writer, no more immune than his contemporaries to this fascinating process of abstraction, never tires of debating whether to stress *technical* at the expense of *writer* or vice versa, and if so, how much. During his colloquy the decision has been made for him: the technical writer is almost exclusively technical. The classified ads that beckon him from coast to coast rarely mention writing ability or training; what they require is an ME or EE degree—classifications that have prefabricated, built-in measurability factors to save the ivory hunters and the other Personnel personnel the trouble of developing new criteria.

It's too bad that the technical writer barely became recognized as the member of a new profession before he changed his mind and became an engineer. It's too bad that he — a trained communicator — allowed himself to be so flim-flammed by the other man's ideas that he failed to communicate his own. What was the fallacy that caused his downfall, and why is that downfall a tragedy?

The fallacy came about naturally enough—most fallacies appear to be reasonable until they are examined rather closely. It's commonly assumed that, since we're citizens of an English-speaking nation, we therefore speak English, write English, and are generally rather good at anything connected with English; we've even studied it in school. The mere ability to use English in communication, the assumption goes on, does not constitute an identifiable, separate body of knowledge; therefore, if technical writing really is a profession, it must consist of something other than just writing—the word *technical* must be the key.

Nobody accepted the identification as another kind of technician any more eagerly than the technical writer himself; there was, and still is, some prestige to be gained from such an association. At the moment, when the words *nuclear, fusion, fission, doppler radar,* and *magnetohydrodynamics* can be found in the lay press, is there any doubt that technology rather than expressiveness is the escalator upon which the profession of technical writing will ascend to an honored place alongside those of medicine, teaching, and the law? And consider the other advantages of becoming one with our technical confreres: we trade our nebulous status on the border of two adjacent disciplines for a clear-cut citizenship in the one that has the greater popular acceptance. Furthermore, we simplify and clarify our make-up so that administrators and Personnel personnel are able to visualize us as a clearly etched, sharply contrasted group, quite distinct from the *hoi polloi*.

We've been savoring those little spinal shivers of ecstasy resulting from our acceptance as technologists for several years. Isn't it time to quit kidding ourselves—time to find out whether those little shivers are caused by our joy at being accepted, or by subconscious apprehension? Is it really necessary to be an electrical engineer in order to be able to tell some third party how some first party changes a light bulb? Total immersion in one technology doesn't make a technical writer! It's time to take another look at ourselves and our calling, and to decide whether we're on the road to success in an identifiable profession, or whether we've taken a detour to oblivion.

The question about the relative importance of the words *technical* and *writer* should never have beguiled the technical writer for more than a moment; he should know as well as anyone else, the futility of trying to unscramble an omelette. If he had been less preoccupied with nonessentials, the Personnel personnel would have found no vacuum ready to accept their own facile definition of a technical writer as "just another odd-ball engineer." But if the technical writer is not just a technician, what *is* he?

He is a person who stands in the best position of anyone in the past 25 centuries to accomplish something that is desperately needed by our civilization: a concept of universality; of unity; a cohesive force to counteract the divisive and dispersive forces of our time. What are these dispersive forces? Where and when did they originate?

Koestler contends that the trouble started with Plato. In the pre-Platonic era, the educated citizen was not a specialist. Natural philosophy embraced all human knowledge: science, art, letters, religion, mathematics, architecture, and so on. Plato's doctrine of ideas, and Aristotle's penchant for categorizing and classifying all things, worked together to divide natural philosophy into separate dogmas: the technological and the humanistic. Plato's claim that since all material things are ephemeral — things that "moth and rust doth corrupt, and that thieves break through and steal" — ideas or concepts were the only imperishable, "real" things. The dogmas of science and the humanities came into existence by mitosis—the same splitting process that creates two cells where only one existed before. Nothing new had been added. The Dark Ages that followed the collapse of Greek civilization were characterized by the frantic attempts of intelligent men to force their experimental evidence into the mold of preconceived ideas.

A technical writer pointed the way back to an intelligent evaluation of empirical evidence and its relationship to "pure" concept. Mikolaj Koppernigk — Nicholas Copernicus — couldn't make his observations of the movements of the heavenly bodies fit the Ptolemaic concept of epicycles. Instead of ignoring the evidence, he wrote a book about it—the first technical book to be set in Gutenberg's new moveable type. But Copernicus' literary-scientific example has not become a pattern for his successors.

The technologists and the humanists tolerate each other, but each considers the other his inferior—the one too crass, the other too effete; yet each is incomplete without the other's knowledge and point of view. The humanist fears the changes in human values and orientation that follow the developments of the technologists — nuclear annihilation, juvenile delinquency, political scandal, unethical behavior of TV luminaries, international tension and unrest—all follow technological change. The technologist, on the other hand, distrusts the wide-eyed impracticality of the humanist — his preoccupation with art, literature, history, and knowledge for its own sake—and considers him a parasite or, at best, an egghead. The divisive forces are many, and they are powerfully abetted by the progressive breakdown of communication between the two groups.

The technical writer is in a better position than anyone else to see the schism between the technologists and the humanists in realistic perspective, and to act as a mediator between the lonely crowds who can speak to no one but their own kind. The technical writer can explain to the technologist why technologies *are* to be feared if they become an end in themselves; that technologies become obsolete, but that people do not. He can explain to the humanist that technology is *not* to be feared when it is intelligently directed; and he can enlist his aid as an intelligent, informed co-director.

The technical writer is a writer who has acquainted himself with scientific principles—not exclusively with the mechanics of applying those principles. He can fit application into the matrix of principle without difficulty. He is a trained observer. His background gives him the ability to see what he looks at — to perceive relationships—to analyze and even to synthesize, as the poet does, those relationships into new entities.

On the other hand, the technical writer is a technician who constantly searches for more effective ways of expressing ideas. He studies the disciplines of logic, semantics, linguistics, and other factors of communication to determine principles; and he tries and rejects different patterns of expression, in a scientist's empirical way, to make all communication more effective.

The thing that distinguishes the technical writer from most of the rest of mankind is his attitude—an attitude toward his craftsmanship and its relationship to the rest of the world. He is not just a technician; to consider himself as such is to lose his identity. He is not just a journalist—he is an interpreter as well as a reporter. He combines the perception and expressiveness of the poet with the intellectual curiosity and methodical investigation attributed to the scientist.

Is this the description of an unattainable ideal? Not at all! There are many technical writers today who meet the specifications. They are distinguished by their lack of complacency, by their striving to broaden and improve their technical understanding as well as the quality of their communication, by their open and inquiring minds, and by the dignity of professionalism when they say, "I'm a technical writer."

Larry Pathe
General Electric Company
Cincinnati

To Editor, *STWP Review:*

Now you've got me sitting up and taking notice! The July issue hit me in the right places!

How should I mark, on your questionnaire, that at least three of the articles were tops? How can I indicate that one of the other should have been blue-pencilled a bit before publication? And a couple of the reviews and ads move me to go write myself.

To dismiss the article by Lytel first, if I may: There were several repetitions and what looked almost like paste-ups in what was otherwise a very useful review of oft-neglected tools. For instance: page 19, col. 2; page 21, col. 1, top and bottom; all told the same facts about Noah Webster in 1828. The section on the NED (OED) was rather labored, and ignored the fact that the OED is being revised constantly not only to keep it historical but also to record contemporary language; and the fact that the OED is the supreme authority in English-speaking areas other than the U. S. Also, the important relationship between these "unabridged" and the "desk" dictionaries might have been stressed. But thank you for a handy summary, with good historical perspective, on these tools.

Bishop on Bishop: What else *can* we say? The thing not only speaks for itself, it fulminates. Rather than with Bishop, I agree with Aronson and Osborne (pages 3 and 31). The *Review* has stopped breast-beating and started being professional.

Now, Sencer on Marder (page 26) and the GE ad (page 29) taken together somewhat bother (I restrain myself from saying rile) me. Having seized Marder's book as soon as it came, and rushed through it, I agree generally that it is "another book on writing, a textbook for a college course." The perfect such textbook has not yet appeared. Dozens of mediocre ones have appeared, and the best I can say for most of them is that their quality usually varies inversely as their length. Marder's is one of the better books.

The review stresses that "All of the chapters have to do with writing, not with forms of reports, kinds of reports, letters, etc." Score one for Marder. Too many texts and reference manuals are burdened with sixteen varieties of reports and memoranda, instead of stressing the obvious and simple facts of straightforward style designed for the needs of the reader. Marder and Albrecht are two textbook writers solidly on the other side of the fence—stressing analysis, logic, and simple style — even if I disagree with both books occasionally.

But my main quarrel with Sencer and GE is their slightly snobbish look at "technical writer" and "technical writing." Gentlemen, what *else* would you call it? I thought we'd settled that long ago.

"Informational writing"? "Factual writing"? "Noncreative writing"? "Nonliterary (illiterate?) writing"? "Business writing"? "Communicative (or communicational) writing"? "Scientific writing"? "Objective writing"? Why should the word "technical" in Marder's title be called misleading? What *else* would you call this craft?

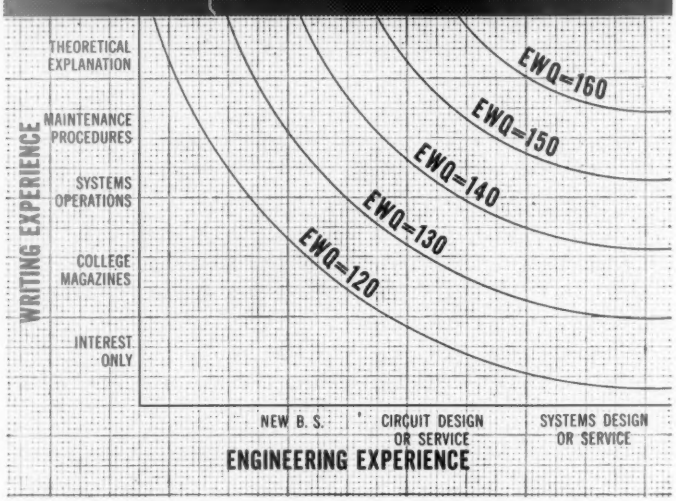
I snicker at GE's efforts to attract engineers to its writing jobs. They leave the back door open, too. Let's face it: Aronson (page 3) is right, GE is right, but GE will find they need not merely engineers, but trained engineer-writers. They should upgrade their qualifications by adding a point 3: Training and experience in writing or journalism—unless they plan to send appointees to get such training.

Unfortunately, the best terms for such "engineering writers" have already been pre-empted. Communications Engineers are electrical engineers working in such fields as telephone and radio. The title of Literature Chemist in pure science is not quite the same thing, and is an unfortunate term. A Writing Engineer would obviously be a queer fish, but the Soviet VINITI (All-Union Institute of Scientific and Technical Information) is using the term Information Engineer (see *American Documentation,* April 1961, page 148).

So, congratulations to GE for making the distinction. Let us encourage them to upgrade the distinction still more. It is such recognition of the craft as a specialty within engineering, recognition by employers and colleagues, which will truly result in professional status for the engineer-writer. Status comes from community recognition, not from agitation among the practitioners.

Finally, let me beg off finishing the questionnaire. As a science and engineering librarian, I expect to be teaching this year the bibliography of science, rather than the course in engineering literature and technical writing which I've done over the last ten years, and for the moment I'm out of the technical writing field. But I'm trying to keep in touch with the field, and spread the good word in all my contacts with science and engineering students and

what's your EWQ?



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D. A. Redmond
University of Kansas
Lawrence, Kansas

To Editor, *STWP Review:*

Distasteful as it may be, we must eventually face up to the fact that the writer not professionally trained in the field in which he is writing cannot do a thorough and accurate job of presenting information. He must depend on others, more familiar with the field, to determine the technical accuracy of his material. This simple fact, in my opinion, causes the non-scientifically trained writer to fall somewhat short of being a true professional.

Two items in the July 1961 *STWP Review* clearly illustrate and support my point. The contribution to your letters column by Mr. Milton H. Aronson points out the basic problem in the statement ". . . until professional editing demands professionals trained in the field, the profession will not be professional."

There are some who might scoff at Mr. Aronson's viewpoint. They need only turn to the GE ad on page 29 of the same issue. There, in a very succinct presentation, the difference between an engineering writer and a technical writer is clearly defined. The ad states that "the Engineering Writer is a professional in the full sense of the word—with a technical competence approaching that of the Design Engineer with whom he so closely works."

I sometimes wonder whether all of us who are involved in the loosely defined field of technical communication shouldn't face the facts and recognize that most so-called technical writers are not professionals. Instead, they are technicians who, by virtue of a certain amount of training or skill in the technique of writing, are able to assist the true professional in the same way that an electronics technician, laboratory technician, or medical technician assists the engineer, scientist, or doctor in carrying out his creative professional activity.

I do not wish to insult the vast numbers of STWP members who lack scientific knowledge or training. Rather, I feel we would have an easier task of recruiting qualified technical people into the writing end of the business if the difference between "engineering" and "technical" writing were more clearly established and recognized throughout the scientific and engineering worlds.

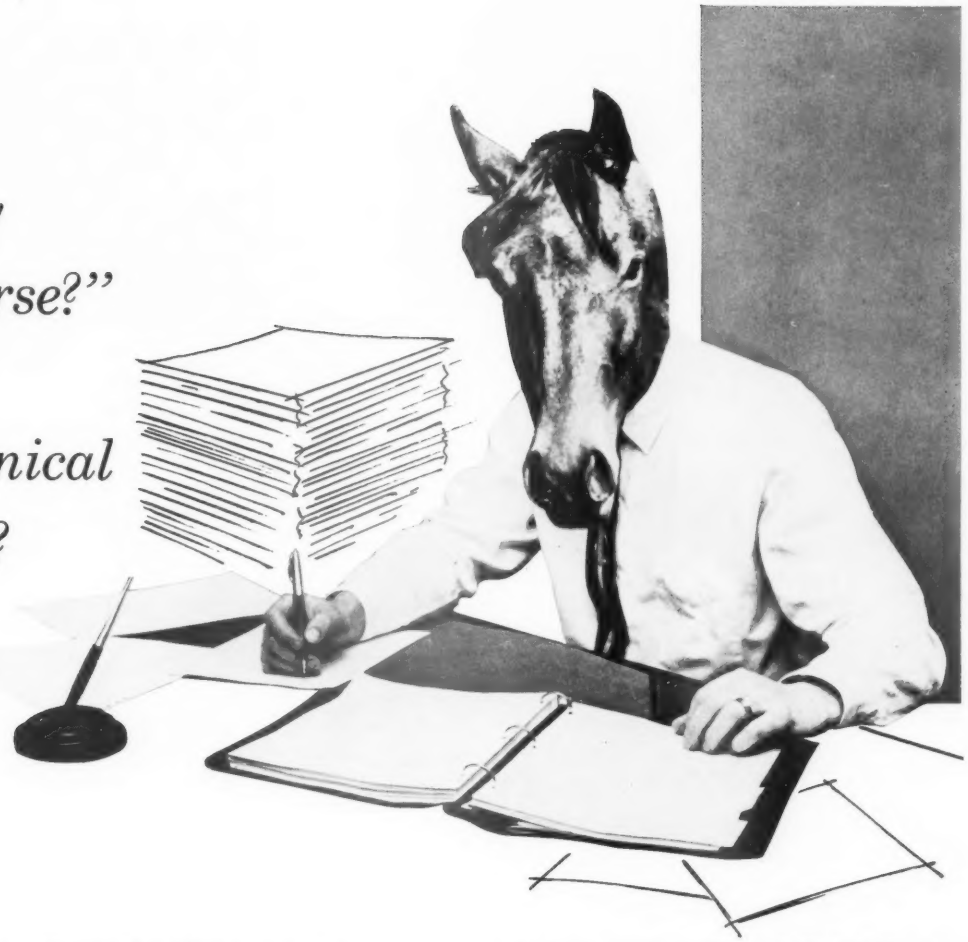
Harry J. Lewenstein
Hewlett-Packard Co.
Palo Alto, California

To Editor, *STWP Review:*

Informationwise, Dr. Smith's article in the July issue was fantanamous! It should be a criteria for tech writers who practice non-grammaticalization.

Marshall Keith
Huntsville, Alabama

"Harry the Horse?" or a Technical Writer?



THIS is not "Harry the Horse" studying a racing form. Rather, it is our idealization of a good technical writer and his distinguishing characteristic—horse sense. We know of a great many characteristics we'd like in technical writers; but this is the only one we seem unable to get along without.

Do you have an engineering or science degree with literary emphasis? Or on-the-job technical writing experience? Or a flair for translating functional diagrams into prose? Or have you swallowed H. W. Fowler and Bergen Evans whole? Good. Horse sense, too? Wonderful! Maybe you'd like to share our stable.

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